

# CA JOURNAL

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## CAA Clarifies New Policy On Airport Construction

In response to requests from various segments of the aviation industry for clarification of the recently announced CAA policy for airport construction under the Federal Airport Act, D. W. Rentzel, Administrator of Civil Aeronautics, has issued the following statement:

"It is a recognized fact that future aircraft design is toward aircraft less affected by cross-wind conditions. Further, the new airways traffic control system is aimed at speeding up en route traffic between ground points, and reducing delays. A paramount requisite of this new program will be the increasing of the acceptance rate of present and new airports. The acceptance rate of airports can obviously be greatly increased by the simultaneous use of runways.

"Therefore, to further attain these objectives, the following policies, effective immediately, are hereby established, and will govern the CAA participation

under the Federal Airport Act for new Federal aid projects:

"Class I (personal) airports: CAA will participate in the construction or improvement of only one runway or landing strip on new or existing airports of this class. Exceptions will be made only where it can be demonstrated conclusively that traffic volume requires more than one runway or landing strip.

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## Reporting Procedure on "Buzzing" Pilots Outlined

Procedures for speedier reporting and punishment of pilots who engage in "buzzing" and other reckless flying have been drawn up jointly by the armed forces and civil aviation interests.

The public is being asked to participate in the program, which makes all Civil Aeronautics Administration offices reporting points for incidents involving either civil or military aircraft.

"Anyone who observes an airplane 'buzzing' houses, people, or other aircraft," said D. W. Rentzel, Administrator of Civil Aeronautics, "should telephone the nearest CAA office, giving all details which will help identify the plane. Usually the telephone will be listed under 'U. S. Government.' The report should be confirmed by a letter to the same office, so there will be a legal basis for any action taken.

"It is very important to try to get the registration number of offending civil aircraft, which is displayed on the left half of the lower surface of the wing, and on the vertical tail surface. Without this number, it is quite difficult to identify the violator.

"Military aircraft always have numbers on the tail. In addition, most Air Force planes have base numbers on the side of the fuselage, and Navy planes have a series of three numbers on the side of the fuselage, lower left wing, and top of right wing."

In the case of civil planes, the CAA office will have the report transmitted immediately to the nearest CAA aviation safety agent. He will investigate to determine whether a formal report of violating the Civil Air Regulations should be made, and in emergency cases, whether a temporary suspension action should be taken against the pilot's certificate.

Reports of incidents involving military aircraft will be transmitted by telephone through the CAA air-route traffic control center to the nearest military flight service center. The latter center will take steps to identify the aircraft and forward an alleged violation report for action by the commanding officer of the pilot involved.

The procedures were worked out in a series of conferences attended by representatives of the Air Line Pilots Association, Air Transport Association, Aircraft Owners and Pilots Association, Air Force, Coast Guard, Navy, CAA, and Civil Aeronautics Board.

All CAA offices are being alerted to handle telephone reports of "buzzing" and other reckless flying on a "flash" basis, so that remedial action can be initiated promptly by CAA aviation safety agents or military authorities. Long-standing regulations and enforcement procedures provide adequate civil or military penalties, it is believed, but "flash" reporting will make it easier to identify violators.

## Board Has Plan To Make Annual CAR Revisions

The Civil Aeronautics Board announced last month that it will introduce a procedure of annual revisions covering all parts of the Civil Air Regulations pertaining to airworthiness of aircraft engines, propellers, and appliances presently designated under Civil Air Regulations Parts 1 to 16, inclusive. The procedure is contemplated to follow an annual cycle beginning January 1, 1950, and to continue each year thereafter.

The Board said it believed the annual revision procedure will tend to stabilize the Civil Air Regulations and thus enable the industry to make more definite plans with respect to their studies of the regulations and manufacture of their products. Moreover, the procedure is expected to save considerable time and effort on the part of the industry and Government agencies, which have been forced to consider numerous proposals for revision of the regulations, individually and at irregular periods.

The Board added, however, that it will be prepared at all times to consider for adoption, independently of the new annual type procedure, all proposed rules which might be of an emergency nature from the standpoint of safety.

Following is a tentative schedule of the activities embodied in the new procedure of annual revisions to all parts of the Civil Air Regulations presently designated in Parts 1 to 16:

1. Shortly after January 1, a release will be circulated to the public by the Board's Bureau of Safety Regulation. This release will review briefly the status of all the important issues involving these regulations for the coming year. The release will request all interested parties to submit to the Board by May 1 all desired comments and specific proposals for deletions, additions, or amendments to any of the airworthiness parts.

2. After May 1, the Board's Bureau of Safety Regulation will conduct a study of all the comments and proposals received. It will assemble all the pertinent specific proposals, together with its own proposals and with those received from the Administrator of Civil

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## Accident Reports . . Civil Aeronautics Board

**Fog Obscured Runway.**—The pilot's inability to see the runway after entering a ground fog during a final approach and landing was the probable cause of an accident to TWA's Flight 211 at Los Angeles Municipal Airport November 25, 1948, the Civil Aeronautics Board found after an investigation.

Minor injuries were sustained by two passengers. The other 16 passengers and crew of 5 on board were not injured. The airplane was substantially damaged by the landing and the fire which followed.

No mechanical or operational difficulty was experienced by the flight prior to the time of landing.

Weather information received prior to the flight's departure from Phoenix, Ariz., in addition to reports obtained en route, indicated that at the time of arrival over Los Angeles ground fog conditions would prevail at the Los Angeles Municipal Airport. A weather report, given to the flight when it arrived over the vicinity of the airport, stated that visibility on the field was 1 mile, but the remarks accompanying the weather observation "ground visibility ½ mile, variable ¼ to ¾ mile, ground fog estimated 10 to 50 feet deep" were omitted.

The flight encountered ground fog before making contact with the runway. As a result of losing visual reference to the runway and the ground, control of the aircraft was lost before the landing was completed.

Contact with the runway was made 2,300 feet from the approach end and was sufficiently hard to cause structural failure and fire. The high-intensity runway lights installed on the runway extended for only 1,160 feet from the approach end. Since the landing was made beyond these high-intensity runway lights, they offered no aid to landing or in controlling the aircraft after contact was made with the runway.

**Braking Effectiveness Inadequate.**—Inadequate braking effectiveness, resulting in inability to stop the aircraft under marginal conditions of stopping distance available, was the probable cause of the accident December 9, 1949, in which a Pan American aircraft was extensively damaged at Rancho Boyeros Airport, Havana, Cuba, during an attempted take-off, the CAB found after an investigation. The stewardess was slightly injured but all of the other 43 occupants of the plane were unhurt.

During the take-off run, with the aircraft making a speed of approximately 109 miles an hour, the crew sensed an unusual vibration. The throttles were closed immediately and the brakes applied.

The left outboard and the right inboard tires blew out within a short distance. As the speed of the aircraft still was fairly high, the captain used the emergency air brakes. However, the aircraft rolled off the end of the paved runway, continued 300 feet to the boundary of the airport, where it struck a ditch and skidded to a stop 315 feet beyond the airport boundary.

The fact that most of the run was completed with only two wheels capable of producing normal braking action may have contributed to the failure of the brakes to stop the aircraft within the required distance, the accident report stated.

Investigation failed to disclose the cause of the unusual vibration sensed by crew members. A nose-wheel shimmy or an unbalanced tire are among the possible causes, the Board said.

**Fire in Vacuum Pump.**—A fire in the vacuum pump exhaust system due to a restriction of an unknown origin was the probable cause of the fire experienced by a National Airlines flight en route from Miami to Tampa, Fla., September 8, 1948, the CAB found.

Forty-five minutes after the take-off from Miami, the crew observed the fuel and oil pressures for the No. 3

engine were reading zero, and the cylinder head temperature was rising rapidly. Fire was observed in the No. 3 engine nacelle, after which the No. 3 propeller was partially feathered and both banks of CO<sub>2</sub> in the nacelle were discharged.

Shortly thereafter a normal landing was accomplished at the Tampa airport.

A CAB investigation revealed that the greatest fire damage was in Zone 2 in the area of the vacuum pump oil separator. A series of tests revealed that a restriction in the discharge line of the vacuum pump causes increases in pressures and temperatures sufficient to ignite the fuel-air mixture in the oil separator.

"Therefore," the accident report stated, "the oil separator must have been the origin of the fire. . . . The only fact not determined is the cause of the restriction in the discharge line or the oil separator for the vacuum pump system."

The accident report stated that "possible sources of the restriction are a clogged oil separator screen due to oil or carbon deposits, a foreign object which may have entered the line during the installation of the engine, or a faulty check valve.

"Since the oil separator screen was reduced to a molten mass, its condition could not be determined. The oil separator and the check valve was completely consumed and most of the discharge line aft of the fire wall was destroyed. For the above reasons it is not possible to make any determination as to which of these three possibilities was the cause of the restriction."

During the investigation, the No. 3 engine was disassembled and it was found that all parts had been properly installed at the time of overhaul, and the engine was in satisfactory mechanical condition. The maintenance and operating history of the engine was reviewed and found to be normal. At the time of the fire the engine had been flown 1.12 hours since the last overhaul. The installation of the engine was completed the day of the flight and it was test flown for a period of 10 minutes.

## Pilots Urged to File Flight Plans With CAA

Beginning a flight without filing a flight plan is asking for trouble, case histories presented in a recently issued safety bulletin of the Civil Aeronautics Board show.

"One of the easiest ways of getting into trouble is to ask for it," the bulletin warns. "Records of the Accident Analysis Division of the Bureau of Safety Investigation have a surprising number of cases of pilots who did just that. To be more specific, they took off on flights of various lengths to various places without leaving a single word behind with anyone as to where they were going. And they never got there. Search for them was held up because obviously it could not be started until they were known to be missing and then no one knew where to look.

"If these pilots had filed flight plans, the end results of their various troubles might not have been as bad. Some would not have died, and in most cases an untold amount of family anguish would have been prevented."

Four histories of cases where searches were delayed, in some cases with fatal results, because flight plans had not been filed, are given in the bulletin. Instructions are given on how to file a flight plan with the nearest Civil Aeronautics Administration control tower or communications station by filling out a form or by radio or telephone.

The bulletin, numbered 184-49, is on sale for 5 cents a copy by the Superintendent of Documents, Government Printing Office, Washington 25, D. C.

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DEPARTMENT OF COMMERCE

Charles Sawyer, Secretary

Civil Aeronautics Administration

D. W. Rentzel, Administrator

Ben Stern, Director

Office of Aviation Information

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## California Leads Nation In Number of Civil Aircraft

California leads all other States in the number of civil aircraft, a new "Statistical Study of U. S. Civil Aircraft" reveals.

The study, published by the Civil Aeronautics Administration, shows that Texas, Illinois, New York, and Michigan follow in that order in the number of planes. The total number of registered planes in the United States is 92,618, of which 86,212 are single-engine, 4,521 have two engines, 20 three engines, 533 four engines, and one has eight engines, and 506 are gliders and lighter-than-air.

The publication gives the manufacturer, model number, description and horsepower of every model of registered aircraft on record in the CAA files. For planes with airworthiness certificates, it also shows the year of manufacture.

The first study completed since a thorough audit of CAA aircrafts records, it is available on request from the Office of Aviation Information, CAA, Washington 25, D. C.

## August Engine Shipments 23 Percent Less Than July

August shipments by civil aircraft engine manufacturers were valued at \$2,547,000—23 percent less than in the previous month and 30 percent less than a year ago. August shipments included 285 engines representing an output of 62,300 horsepower, compared with 660 engines and 139,500 horsepower for August 1948.

The detailed figures on August civil aircraft engine shipments show:

Civil Aircraft Engine Shipments, August 1949

	1949		1948
	August	July	August
Number.....	285	286	660
Horsepower output (thousands).....	62.3	86.1	139.5
Value (thousand dollars).....	\$740	\$1,060	\$1,485
Engines.....	1,458	1,818	1,991
Parts.....	349	441	174
Other products.....			

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## Civil Aircraft Shipments Increase in Dollar Value

Civil aircraft shipments in August increased in airframe weight and dollar value over the previous month as transport shipments gained. August shipments represented increases of 6 percent in weight and 15 percent in value but were down 10 percent in number. During August, civil aircraft manufacturers shipped 272 aircraft, weighing 506,000 airframe pounds valued at 9.9 million dollars. Comparable data for August 1948 were 700 aircraft with 949,600 airframe pounds and 9.9 million dollars.

The total airframe weight of civil aircraft shipped in the first 8 months of 1949 was 41 percent below the second period of 1948.

Comparative figures for July and August 1949 as well as for August 1948 follow:

Civil Aircraft Shipments, August 1949

	1949		1948
	August	July	August
Number (total).....	272	301	700
Number by place:			
1- and 2-place.....	84	71	212
Over 2-place.....	188	230	458
Airframe weight (thousand lbs.).....	506.0	478.4	949.6
Personal.....	176.5		522.7
Transport.....	329.5		426.9
Value (thousand dollars)			
Aircraft.....	\$9,877	\$8,606	\$9,870
Parts.....	2,662	2,237	1,882
Other products.....	1,804	1,561	1,956

## Data on Strength of Metals Given in Revised Publication

"Strength of Metal Aircraft Elements," the bible of aircraft designers who use metal, has been issued in a revised edition.

Prepared by the subcommittee on Air Force-Navy-civil aircraft design criteria of the Munitions Board aircraft committee, the booklet is a "one-stop" reference book for metal aircraft designers and is universally used both in university design courses and aircraft factories.

In only a few cases are there differences between Air Force, Navy, and civil standards in the matter of allowable stresses or minimum strength of typical structures. These few differences are noted in the publication. Thus the reference book eliminates the necessity for referring to many different handbooks and bulletins.

The Air Materiel Command of the Air Force and the Bureau of Aeronautics of the Navy Department, together with the materials producers and the members of the Aircraft Industries Association, cooperated with the CAA in the preparation of the bulletin. The chairmanship of the panel responsible for the preparation and continuous review of the book rests within the Office of Aviation Safety of CAA. W. T. Shuler of the airframe and equipment engineering branch is currently chairman of the panel.

The book is available from the Superintendent of Documents, Washington 25, D. C. at \$1.25.

### Air Traffic Rules Explained

Flight instructors and student pilots will find information of particular interest on Part 60 of the Civil Air Regulations in an 18-page booklet entitled "Air Traffic Rules Guidebook" issued by the Civil Aeronautics Administration. The booklet, prepared to make possible an increased understanding and appreciation of the air traffic rules, is on sale at 10 cents a copy by the Superintendent of Documents, Government Printing Office, Washington 25, D. C.

## CAB Bureau Proposes Revision of CAR Part 6, Rotorcraft Airworthiness

A proposed revision to Part 6 of the Civil Air Regulations, Rotorcraft Airworthiness, has been circulated to the industry for comment by the Bureau of Safety Regulation of the Civil Aeronautics Board.

Persons interested in commenting on the proposal are requested to submit such written data, views, or arguments as they may desire, in duplicate, to the Bureau of Safety Regulation, Civil Aeronautics Board, Washington 25, D. C., not later than January 1, 1950.

The comments received will be considered in preparing the final draft of the revision which will be published in the Federal Register as a notice of proposed rule making. If the comments received are numerous and controversial, it is intended to hold a joint industry-Government meeting in which the matters at issue may be examined more critically, the Bureau said in a draft release of the proposed Part 6b.

**Rapid Advancements Made.**—The present Part 6 became effective on May 24, 1946. Prior to that date, there was no Civil Air Regulation which applied specifically to rotorcraft design. The Bureau said that this part has now been found in need of revision due to the rapid advancement made by the rotorcraft industry in recent years. In order to obtain the various viewpoints on the proposed revisions to Part 6, representatives of the industry and the Government met in Bridgeport, Conn., during July 1948. The results of that meeting are embodied in the proposed revision.

The proposed revision would establish two categories of rotorcraft, transport category "T" and normal category "N". This proposal closely corresponds with the distinction made between Parts 3 and 4b with respect to airplane categories, the Bureau pointed out. It anticipates the following two general types of operations:

- (1) Passenger transportation for hire which would involve operations into and over populated areas.
- (2) Operations which would include personal aircraft operations and industrial operations such as crop dusting, pipe-line patrol, surveying, etc.

**Fire Protection Cited.**—The proposed differences between the transport and normal category requirements are with respect to fire-protection features and emergency exit. "However," the Bureau said, "other requirements such as performance, instruments, etc., might well form a suitable basis for differences between these categories."

"Admittedly, the differences between the two categories as contained in the proposed revision are not great. It is felt, however, that the more important issue at this time is whether or not categorization of rotorcraft will lead to their better utilization in the future. If this issue is resolved in the affirmative, the necessary differences between the requirements for the two categories will become clearer, and such differences eventually will be proposed," the statement continued.

### Airport Design Problems Discussed

Basic information to aid in working out details of a sound program of airport development is available in a publication of the Civil Aeronautics Administration entitled "Airport Design." The booklet was prepared to assist those charged with responsibility for the site selection, planning, design, and construction of airports and is on sale at 30 cents a copy by the Superintendent of Documents, Government Printing Office, Washington 25, D. C.

## Revised Edition of Manual 42 Gives Rules for Irregulars

A revised edition of Civil Aeronautics Manual 42, "Irregular Air Carrier Certification and Operation Rules," is now available, D. W. Rentzel, Administrator of Civil Aeronautics, has announced.

The revised manual interprets and explains the requirements for irregular air carrier operations specified in Part 42 of the Civil Air Regulations. It supersedes Civil Aeronautics Manual 42, dated November 1, 1946.

Contained in the revised edition are all the new regulations promulgated by the Civil Aeronautics Board since the original manual was printed. Important among the changes are the provisions which bring certification of pilots for large aircraft and the operational use of the aircraft to a par with the requirements for scheduled air carriers.

Copies of Manual 42 are available from the Superintendent of Documents, Government Printing Office, Washington 25, D. C., for \$1, which includes supplementary service. Under a new arrangement, the purchaser, at the time he receives his copy of Manual 42, will receive supplements, if any, issued to that date, and his name will be placed on a mailing list to receive additional supplements which may be issued, up to a total of 10.

## CAA Grants Mexican Agency Repair Station Certificate

The first certificate authorizing a foreign repair agency to perform work on United States aircraft has been issued in Mexico City by the Civil Aeronautics Administration to Compania Mexicana de Aviacion, S. A.

The certificate was presented by R. S. Stadden, deputy chief, maintenance inspection, Fourth Region, CAA, to Aaron Saenz, president, and A. M. Morales, chief of maintenance department, acting on behalf of the company.

"Issuance of foreign repair station certificates," Mr. Stadden explained, "will enable our aircraft operators to accomplish the maintenance and repairs necessary to get their planes back into service without undue delay, in areas where no United States repair stations are functioning."

Authority to issue foreign repair station certificates was provided by Civil Air Regulations Amendment 52-1, which became effective March 10. It will permit certification of stations if their personnel are deemed competent by the CAA, even though they do not hold CAA mechanic certificates. The foreign stations must comply with all other technical requirements for United States repair stations, such as having an adequate inspection system and a stockroom which provides for the proper storage and segregation of parts and materials.

Certificates are issued for 6 months, and holders must maintain such records and make such reports with respect to United States registered aircraft as the Administrator finds necessary.

## Airport Drainage Information Given in CAA Publication

Information helpful to the engineer in developing an efficient and economical airport drainage system is presented in "Airport Drainage," a Civil Aeronautics Administration publication on sale at 30 cents a copy by the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C.

The material presented in "Airport Drainage" represents the basic considerations in the application of airport drainage design.



# 12 Recommendations Are Submitted By CAA Airports Advisory Committee

Twelve recommendations dealing with airport problems, growing out of the first meeting of the CAA Airports Advisory Committee, have been presented to D. W. Rentzel, Administrator of Civil Aeronautics, by A. B. Curry, committee chairman.

The Advisory Committee was selected to represent the airport segment of the aviation industry and to advise the CAA on matters of airport operation, maintenance and management. The recommendations resulted from a 4-day discussion of current problems by CAA and industry representatives in Washington.

Recommendations, made in a letter from Mr. Curry to the Administrator, follow:

**"(1) Continuation of the Federal Airport Act:** The Committee is greatly concerned with the expiration provision of the Federal Airport Act on June 30, 1953. The Committee was informed that plans are now being crystallized for the fifth year of this 7-year program and that only 30 percent of the \$520,000,000 congressional authorization of the act has been actually appropriated to date.

"It was also brought out that the National Airport Plan, which is a current 3-year forecast of the needs of civil aviation, will require a Federal expenditure of approximately \$510,000,000. The National Airport Plan is mentioned here to point out that the Federal Aid Airport Program to date has only begun to scratch the surface for the development of airports which are critically needed.

"Airport development has not reached a stage where public agencies could carry out the airport program essential to both domestic and foreign commerce as well as from a standpoint of national defense. Private and commercial aviation to a large extent is entirely dependent upon the continuation of this program.

"In view of the above, the Committee unanimously urges that the Administrator recommend to the Congress and others concerned as soon as practical that the Federal Airport Act be extended and continued to be consistent with the national policy of the Federal Government in developing waterways, highways, railways, and other Federal subsidies which contribute to the national economy and development of our Nation.

**"(2) State Legislation to Exempt Commercial and Privately Owned Fields From Tax:** The Committee has not been able to reach a conclusion on the above subject. Its attention has been directed to a tendency to tax even municipal-owned property leased out and while exemption from taxation would undoubtedly stimulate interest and private enterprise in fields exempted, the Committee believes that further study should be made.

"It is therefore recommended that the Administrator cause to be made a study of the problem of taxation and that he provide each Committee member with complete available data for further consideration at the next meeting of the Committee on this subject.

**"(3) Caster Landing Gear:** The Committee considered the subject of caster landing gear in connection with use of single-strip airports. In presentations to the Committee, usefulness of the caster landing gear was not in question; however, the extent of its efficiency in relation to the Federal Airport Program as to whether it would justify change to exclusive one-way strips for class 1, 2, or 3 airports at the present time was seriously questioned. The Committee feels that while the newly developed castered landing gear is a worthy contribution to safety in flight, that it may not be the complete answer that its enthusiastic supporters claim, and further, that Federal airport funds should continue to be expended for the construction of multiple directional runways

at airports until such time as there is more proof of the practical value of all such devices which tend to eliminate the necessity of construction of more than single-direction runways. The Committee recognizes that in many cases single-direction runways have their place and should also receive Federal aid.

**"(4) Technical Standard Order N-13:** The Committee is concerned with the effect of Technical Standard Order N-13 from the standpoint of its requirements if strictly enforced. From the discussions by various members of the Committee and representatives of the Federal Airways Division of the Civil Aeronautics Administration and others, it is obvious that a substantial number of waivers will be required or unnecessary hardship and expenditure will be encountered by airport operators and owners. New runways and taxi lay-outs are in progress or planned which will require different tower locations than now exist. Some airport owners do not have available funds to modify; the design may not represent the ultimate type of control tower. The Civil Aeronautics Administration is commended for advising what a proper control tower should be, but the Committee questions the right of the Civil Aeronautics Administration arbitrarily to tell the airport operator that there will be no operation at an airport or no Federal funds unless he adheres exactly to the specifications promulgated by the Administration.

"The Committee recommends that the qualifications should be as follows:

"1. In cases where the airport operator is intending to construct new terminal building facilities of a permanent type in connection with which control towers are intended to be included.

"2. Where new towers must be constructed because of present location that is not suitable.

"3. Where redesign of airport runway lay-outs requires relocation of towers, completion of new construction work before airports can be put into use.

"4. That the mandatory provisions of TSO-N-13 be modified to the extent that it apply only to such cases, if any, as constitute a recognized hazard to safety in operation; also, that it be recognized that the design as contained in the order may not represent the ultimate requirements at given airports, and therefore should only serve as a guide.

**"(5) Foster Aviation:** The Committee recommends that the story of the responsibilities and activities of the Civil Aeronautics Administration and the Weather Bureau, particularly the activities of these bureaus which result in providing the flying public and the air carrier with the maximum degree of safety known in the science of aeronautics, be dramatized as an educational film by the motion-picture industry. The lack of public understanding of aviation must and should be remedied; therefore, the Committee would like to be kept informed of the Administration's endeavors to cure the public's present misunderstanding regarding aviation.

**"(6) Functional Design for Airport Terminal Buildings:** The Committee is greatly concerned with the lack of data and criteria available among Federal agencies, professional planners, engineers, and others, to be used in connection with the efficient utilization of space in airport terminal buildings. It is felt that functional utility design of airport terminals is of great importance as it affects the aviation

industry and the public using the airport. It was brought to the attention of the Committee that many thousands of dollars were presently being expended by public agencies for individual designs and with no one being satisfied that they had used the best data and criteria available in developing such designs.

"In view of the above, the Committee recommends that the Administration initiate a project towards the development of a publication which would disseminate the best data, practices and criteria available on this subject. Such a publication would be of invaluable assistance to the public at large. It is possible that the Administration may want to give consideration to the establishment of an annual award in the undergraduate schools of architecture for the best design on this subject. This suggestion would enable the Administration to receive many ideas from creative youths throughout the country and would do much toward the fostering of aviation in our universities and creating a public interest in airport design and development.

**"(7) Abandonment of Existing Airports:** The Committee is concerned with the problem of finding all possible means and doing everything reasonably possible to avoid or prevent the abandonment of existing airports. Accordingly, the Committee believes that the Civil Aeronautics Administration should employ able personnel to advise airport owners and operators regarding sound airport operating practices with a view to effecting both economies in operation and improvement in obtaining additional revenues. Such personnel should be high type, qualified to provide a service to airport management in improving all phases of its operations similar to agricultural and other governmental advisory services. It is important and necessary to the development and utility of civil aviation, air commerce, and the national defense to preserve existing airports, as it is to develop and improve additional airports. The greatest need is to make the airports self-sustaining. Education, rather than regulation, appears to be the most practical approach.

**"(8) Air Star Route:** The Committee is looking forward to a continued improvement of mail service and the ultimate delivery of all first-class mail by air. The Committee is of the opinion that closer cooperation between the Post Office Department and the Civil Aeronautics Administration is desirable and that the Post Office Department should keep the Civil Aeronautics Administration fully informed of its acts and plans affecting aviation. It is believed that reduction in postal rates and in the cost of air transportation will greatly facilitate the delivery of mail by air. Recognition of the small operators in awarding mail contracts is urged. More information pertaining to this subject should be disseminated to airport operators; therefore, it is recommended, that the Administrator maintain a continuing liaison with the Post Office Department to accomplish the above objectives.

**"(9) Amending Legislation to Provide Utility of Unused State Apportioned Funds (S. 1284, H. R. 4239):** The Committee considered different proposals for use of unused Federal funds apportioned to States in order to obtain maximum utilization from past and future appropriations relating to the Federal Airport Act.

"A compromise was brought to the attention of the Committee which would provide that at the end of any fiscal year that the portion of the State-apportioned funds remaining unobligated or unexpended would be available for redistribution in the same manner as a new appropriation within the present meaning of the Federal Airport Act; i. e., 75 percent of such balances would be redistributed to the States and 25 percent to the discretionary fund. In addition, all of the unobligated and unexpended funds appropriated for the 1947, 1948, and 1949 fiscal years would become immediately available 30 days after passage of the amendment. This compromise proposal would substantially preserve the original intent

# Air Regulations . on November 1, 1949

of the Federal Airport Act by insuring each State its apportioned share of available Federal funds and would provide sufficient funds in States with projects ready for construction under the original terms of the Federal Airport Act.

"The Committee recommends that the Administrator urge passage of this amendment.

**"(10) International Agreements Pertaining to Airport Fees and Charges:** After careful consideration, the Committee recommends that any international agreement on airport fees and charges be patterned after the Interstate Commerce Act and the Civil Aeronautics Act, and be consistent with the legislative policy which has developed in connection with all modes of transportation which would not deprive the airport operator and the aeronautical user of the airport of the opportunity of exercising independent business judgment.

**"(11) Regulations Pertaining to the Federal Airport Program:** The Committee desires to commend the Administration for its recent simplification of the regulations and the reduction of the verbiage and forms connected with these regulations, particularly its action in simplifying the sponsor's assurance agreement by deleting therefrom matters not material to a contract between the airport owner and the Federal government, and most especially for deleting restrictive language in regard to the distribution of petroleum products which serious investigation has shown to be hampering and impractical of application to proper airport management.

**"(12) Land Cost for Airport Development:** The Committee is of the opinion that the present limitation of 25 percent of Federal participation in the cost of land needed for airport development should be raised to 50 percent. It is felt that the present limitation has made it impossible to select the best available sites in all cases and that it discourages the acquisition by project sponsors of sufficient land to properly safeguard and develop the airport; i. e., most public agencies owning airports are reluctant to acquire enough land in the immediate vicinity of their airports to avoid conflicts between their interests and those of neighboring property owners. Sufficient land should be acquired in the initial stages of the airport development to permit aircraft to land and take off at their airports without trespassing on nearby land, to prevent obstruction of the airport approaches, to permit the elimination of existing airport hazards, and to ensure their retention of complete control over the use and operation of the airport.

"In view of the above, it is urgently requested that the Administrator seek early passage of S. 1281 and H. R. 4199, an amendment to the Federal Airport Act which provides for Federal participation up to 50 percent on the acquisition of land."

Mr. Curry's letter continued:

"I feel that the above recommendations are rather limited in scope and that the Committee should have been more positive and possibly more diversified in its recommendations. The airport problems confronting operators, airlines, public officials, and others are numerous and complex. However, the Committee's feeling is that in subsequent meetings, where more deliberation and prior consultation with informed persons can be had, it will result in your Committee being able to function in the manner desirable to all.

"Since the first Committee meeting we have invited the airlines to pose some of the problems now confronting them at many airports. Also, your Committee has been receiving numerous inquiries from local operators and officials concerning airport matters. It is surprising to us how the Committee has caught on with the imagination of the public. There is a real public interest in the activities of this Committee and each member recognizes the tremendous opportunity and responsibility accompanying membership on the Committee. It is the earnest desire of every member

TITLE	No.	PART			MANUAL		
		Price	Date	No. of Amendments	Price	Date	No. of Supplements
Aircraft							
Airworthiness Certificates.....	1	\$0.05	5/10/49		None	None	
Type and Production Certificates.....	2	.05	8/1/49		\$0.10	8/1/46	
Airplane Airworthiness: Normal, Utility, Acrobatic, and Restricted Purpose Categories.....	13				None	None	3
Airplane Airworthiness: Transport Categories.....	14a	.20	9/1/49	(*) 1	.45	7/1/44	4
Rotocraft Airworthiness.....	6				None	None	
Aircraft Airworthiness: Limited Category.....	9				None	None	
Aircraft Engine Airworthiness.....	13	.05	8/1/49		None	None	
Aircraft Propeller Airworthiness.....	11				.15	5/1/46	
Aircraft Equipment Airworthiness.....	15				No stock	7/1/38	
Aircraft Radio Equipment Airworthiness.....	16	.05	2/13/41		No stock	2/13/41	
Maintenance, Repair, and Alteration of Certificated Aircraft and of Aircraft Engines, Propellers, Instruments.....	18	.05	8/15/49		.60	6/1/43	
Airmen							
Pilot Certificates.....	20	.05	8/1/49	1	None	None	
Airline Transport Pilot Rating.....	21	.05	8/15/49	1	None	None	
Lighter-than-air Pilot Certificates.....	22			1	None	None	
Mechanic Certificates.....	24	.05	9/1/49		None	None	
Parachute Technician Certificates.....	25			1	None	None	
Air-traffic Control-tower Operator Certificates.....	26			1	None	None	1
Aircraft Dispatcher Certificates.....	27			1	None	None	1
Physical Standards for Airmen.....	29	.05	10/1/49		None	None	
Flight Radio Operator Certificates.....	33			1	None	None	
Flight Navigator Certificates.....	34			1	None	None	
Flight Engineer Certificates.....	35			1	None	None	1
Operation Rules							
Air Carrier Operating Certification.....	40	.05	9/1/49	(2)	None	None	1
Certification and Operation Rules for Scheduled Air Carrier Operations Outside the Continental Limits of the United States.....	41			(*) 2	None	None	1
Irregular Air Carrier and Off-Route Rules.....	42	.10	6/1/49	(3)* 2	\$1.00	9/1/49	
General Operation Rules.....	43	.05	8/1/49		None	None	
Foreign Air Carrier Regulations.....	44	.05	9/1/49		None	None	
Commercial Operator Certification and Operation Rules.....	45	.05	6/1/49	(4) 1	None	None	
Operation of Moored Balloons.....	48	.05	9/1/49		None	None	
Transportation of Explosives and Other Dangerous Articles.....	49	.10	7/20/49		None	None	
Air Agencies							
Airmen Agency Certificates.....	50	.05	10/1/49	* 1	.15	5/15/46	6
Ground Instructor Rating.....	51	.05	10/10/49		None	None	1
Repair Station Rating.....	52	.05	10/15/49		No stock	2/41	
Mechanic School Rating.....	53			1	Free	5/40	
Parachute Loft Certificates and Ratings.....	54	.05	10/15/49		.15	7/1/48	
Air Navigation							
Air Traffic Rules.....	60	.10	8/1/49		* 1.00	8/1/49	
Scheduled Air Carrier Rules.....	61	.05	9/1/49	(*) 2	None	None	
Notice and Reports of Aircraft Accidents and Missing Aircraft.....	62	.05	5/1/49		None	None	
Miscellaneous							
Rules of Practice Governing Suspension and Revocation Proceedings.....	97				None	None	

1 Certain aircraft may comply with the provisions of this part or part 4a.

2 Special regulations SR-333, SR-335.

3 Special regulations SR-334, SR-337.

4 Special regulation SR-337. For the convenience of the public, the entire text of Part 45, as amended, is set forth in Admt. 15-1.

5 Special regulation SR-336.

6 Combined with Flight Information Manual, Vol. 4, No. 1.

7 Special regulation SR-334.

(\*) Amendments 4a-2, 41-4, 42-1, and 61-5, adopted June 29, 1949, were not published with the Civil Air Regulations in Part

II, Section 1, of the Federal Register on July 16, 1949, but may be obtained free from the Publications Section, CAB.

NOTE: Those parts and manuals for which there is a price are obtained from the Superintendent of Documents, Government Printing Office, Washington 25, D. C. Remittances should be by check or money order, payable to the Superintendent. Currency is sent at sender's risk. Amendments, Special Regulations and free Parts are obtained from the Publications Section, Civil Aeronautics Board, Washington 25, D. C.; Supplements and free Manuals from the CAA Office of Aviation Information, Dept. of Commerce, Washington 25, D. C.

of the Committee to justify the confidence you have reposed in us.

"The Committee unanimously feels that scheduled meetings should be called when and where at the discretion of the Chairman or the Administrator. Realizing the importance and the enormity of the task assigned, it was felt that every member should be given an opportunity to hold a meeting in his locale. After due deliberation, the Committee decided that its next meeting would be held in Los Angeles, Calif., on January 23, 1950.

"Subsequent programs of the Committee will contain program items of a broad and constructive nature after consultation and collaboration with the best available sources in order that all concerned may benefit."

## Operation of Private Plane Discussed in CAA Booklet

"Facts of Flight" is the title of a Civil Aeronautics Administration publication which gives practical information about operation of private aircraft. The 41-page booklet, illustrated in color, and written in nontechnical language, has chapters on airplane flight, stalls, spins, airplane structure, airplane engines, flying the plane, airport traffic, seaplanes, and safety in flight.

"Facts of Flight" is on sale by the Superintendent of Documents, Government Printing Office, Washington 25, D. C., at 50 cents a copy.

# Official Actions . . . . . Civil Aeronautics Board

## Regulations

### SR-337-----Effective October 25, 1949

Authorizes the Administrator of Civil Aeronautics to establish a maximum take-off weight for certain airplanes under 12,500 pounds operated by Alaskan air carriers.

### ER-151. Amdt. No. 1 to Part 291-----Effective November 12, 1949

Part 291 of the Economic Regulations classifies small irregular carriers as any irregular air carrier which does not use in its transportation services aircraft having a gross take-off weight in excess of 10,000 pounds for any one unit or of 25,000 pounds for the total of such units (disregarding units of 5,000 pounds or less). It is the purpose of this regulation to revise these limitations by conforming them to the "small aircraft" limitations of Part 42 of the Civil Air Regulations which states in § 42.1 that aircraft of less than 12,500 pounds maximum certificated take-off weight shall be considered as small aircraft.

In consideration of the foregoing, the Civil Aeronautics Board amends Part 291 of the Economic Regulations as follows, effective, November 12, 1949:

By amending § 291.2 (b) in its entirety to read as follows: "(b) Any irregular air carrier, as classified above, which does not use in its transportation services aircraft units having a maximum certificated take-off weight (as defined in Civil Air Regulations, Part 42, § 42.1) in excess of 12,500 pounds for any one unit or of 25,000 pounds for the total of such units (disregarding units of 5,000 pounds or less), shall be classified as a small irregular carrier."

### Amdt. 45-1-----Effective November 10, 1949

Part 45, prior to adoption of this amendment, required all persons engaging in the carriage in air commerce of goods or passengers for compensation or hire to operate under the same or equivalent safety requirements as those required of air carriers engaging in interstate or off-route operations. Since air commerce as defined in the Civil Aeronautics Act of 1938, as amended, embraces any operation of aircraft on any civil airway or any operation of aircraft which directly affects or which may endanger safety in interstate air commerce, and since the Board has determined that the "operation of any aircraft in the air space overlying the United States either directly affects, or may endanger safety in, interstate, overseas, or foreign air commerce,"<sup>1</sup> it is clear that the provisions of Part 45 applied to intrastate operation of aircraft carrying goods or passengers for compensation or hire.

However, the Board does not believe that Part 45 provided appropriate certification and operating requirements for a commercial operator who is conducting passenger operations on a frequent or regular basis. Operations of this type are in the same category from the point of view of air safety as the certificated feeder air carriers who are required to operate under the higher safety standards established by Parts 40 and 61. The Board, therefore, is amending Part 45 to require commercial operators who are conducting an intrastate operation with the degree of regularity or frequency set forth in § 45.3 (a) of the amended part to comply with the certification and operation requirements generally comparable to those required of the feeder air carriers to whose operations these intrastate commercial operations bear close resemblance, at least from a safety viewpoint.

This amendment will require the operators thereby affected to establish company communication and dispatching systems, qualify their pilots over the routes, and to establish a company-owned maintenance organization, unless the Administrator finds that other certification or operating "requirements" will provide an appropriate level of safety for the operation<sup>2</sup> proposed.

In order to simplify administration of the regulations and to avoid unnecessary duplication of certificates, the regulation is amended to authorize the air carriers to conduct private carriage operations, to the extent that it may be possible for an air carrier to conduct such operations, without obtaining a commercial operator certificate, unless the air carrier holds only a Part 42 certificate and operates as a common carrier between two points entirely within a State with the frequency set forth in § 45.3 (a). Of course, any private carriage operations by an air carrier would be subject to the operating requirements of Part 42 through the provisions of this part. It will also be noted that for similar reasons we are requiring that where common carrier operations between points entirely within a State are conducted with the frequency set forth in § 45.3 (a), all operations between such points be conducted under the requirements of Part 61. We find that these provisions which are important for adequate administration and enforcement of the part do not impose any undue additional burden on an operator.

In consideration of the foregoing the Board finds the amendment is reasonable and is necessary to provide adequately for safety in air commerce and amends Part 45 of the Civil Air Regulations to read as follows:<sup>2</sup>

**45.0 Applicability of part.** The provisions of this part shall be applicable to citizens of the United States engaging in the carriage in air commerce of goods or passengers for compensation or hire, unless such carriage is conducted under the provisions of an air carrier operating certificate issued by the Administrator. For the purpose of this part, student instruction, banner towing, crop dusting, seeding, and similar operations shall not be considered as the carriage of goods or persons for compensation or hire.<sup>3</sup>

**45.2 Certificate required.** No person subject to the provisions of this part shall engage in air commerce using aircraft of 12,500 pounds or more certificated maximum take-off weight until

he has obtained from the Administrator a commercial operator certificate; *Provided*, That any such person may engage in operations subject to the provisions of this part without a commercial operator certificate until such time as the Administrator shall pass on his application for such certificate, but in no case later than January 1, 1950, if he (1) is engaged in such operations on the date of adoption of this part and (2) has filed with the Administrator an application for such certificate not later than June 1, 1949; *Provided further*, That no person holding an air carrier operating certificate shall be required to obtain or be eligible for any commercial operator certificate unless he holds only an air carrier operating certificate issued pursuant to Part 42 and conducts or intends to conduct flights between two or more points within a State with the frequency set forth in § 45.3 (a).

**45.3 Certification requirements.** A commercial operator certificate shall be issued to an applicant who demonstrates to the Administrator that he is capable of conducting his operations in accordance with the provisions of Part 42 as heretofore or hereafter amended, or at an equivalent level of safety; *Provided*, That an applicant who carries or intends to carry passengers for compensation or hire as a common carrier between any two points<sup>4</sup> entirely within any State with the frequency set forth in paragraph (a) shall demonstrate that he is capable of conducting those operations in accordance with the requirements of Part 40, as heretofore or hereafter amended, except §§ 40.1 and 40.5 through 40.8, or with such other certification requirements as the Administrator finds will provide an appropriate level of safety for the operation.<sup>5</sup>

(a) Two flights, or one round trip, a week on the same day or days of the week for any eight or more weeks in any 90 consecutive days; or a total of 36 or more flights, or 18 or more round trips, in any 90 consecutive days.

## 45.4 Operating rules.

(a) Except as provided in paragraph (b), all persons subject to the provisions of this part shall, in the conduct of operations subject hereto, comply with the operating requirements of Part 42 as heretofore or hereafter amended, except that no person shall be required to comply with the provisions of § 42.12, fire prevention requirements, until January 1, 1950. Operating requirements shall be deemed to include requirements relating to aircraft and equipment, maintenance, flight crew, flight time limitations, flight operation, aircraft operating limitations, and related record-keeping and reporting requirements.

(b) Persons subject to the provisions of this part who conduct common carrier operations subject hereto between points entirely within a State with the frequency described in § 45.3 (a) shall, in the conduct of all operations between such points, comply with the requirements of Part 61, as heretofore or hereafter amended, except §§ 61.1 and 61.2, or with such other operating requirements as the Administrator finds will provide an appropriate level of safety for the operation.

**45.5 Certificate rules.** The certificate rules prescribed in §§ 42.5 through 42.9 shall be applicable to commercial operator certificates.

## Safety Orders

S-274 revokes pilot certificate of Alfred Bates for piloting an aircraft with a passenger at a low altitude over a congested area and after the hours of darkness without displaying position lights (Sept. 14).

S-275 grants request of North American Aviation for waiver of the provisions of § 9.3 (a) of the Civil Air Regulations which provide that a limited airworthiness certificate shall not be initially issued after August 31, 1948 (Sept. 21).

S-276 revokes pilot certificate of Earl E. Ragan for low flying (Sept. 22).

S-277 suspends for 30 days from October 8, 1949, pilot certificate of Herbert M. Schorn, for landing an aircraft in a control zone when the visibility was less than 3 miles and ceiling less than 1,000 feet and for failing to familiarize himself with the current weather reports and forecasts prior to the flight (Sept. 28).

S-278 stays, until further order of the Board, the initial decision of an examiner, issued August 18, 1949, revoking the irregular air carrier operating certificate of Inter-American Airways, Inc. (Sept. 29).

S-279 grants request of Alfred Eric Neumann, also known as Fredrick Allan Newman, for waiver of §§ 20.3 and 20.21 of the Civil Air Regulations (Oct. 5).

S-280 revokes pilot certificate of Vincent Hughes South, for diving low over small fishing boats and on two occasions flying low and performing acrobatic maneuvers at altitudes between 100 and 200 feet over a congested residential area (Oct. 7).

## Airline Orders

E-3151 approves agreements CAB Nos. 2917, 3007, 3008, 3009, 2921, 2919, 2922, 3010, 3011, 3012, 3013, 3014, 3015, 2920, 3016, 3017, 3018, 3019, 2924, 3020, 3021, 3022, 2918, 3023, 2925, 3024, and 3025 between United Air Lines and certain foreign air carriers and others, relating to IATA interline traffic agreements (Aug. 17).

E-3152 dismisses proceeding of investigation and suspension instituted in Docket No. 3720, relative to certain proposed fares (Aug. 18).

E-3153 dismisses proceeding of investigation and suspension instituted in Dockets Nos. 3766 and 3795, relative to certain fares proposed by Pan American, Eastern, and National (Aug. 18).

E-3154 dismisses proceeding of investigation and suspension instituted in Docket No. 3790, relative to certain fares proposed by the Flying Tiger Line (Aug. 18).

E-3155 dismisses proceeding of investigation and suspension

instituted in Docket No. 4002 and consolidated into Docket No. 3981, relative to certain fares proposed by Mid-Continent Airlines (Aug. 18).

E-3156 consolidates certain applications and denies motions and petitions of certain carriers in the *Parks Investigation* case (Aug. 18).

E-3157 fixes the mail rate for Capital Airlines over its entire system (Aug. 18).

E-3158 orders Challenger Airlines Company to show cause why the Board should not make final the mail rates as set forth in an attached statement (Aug. 18).

E-3159 authorizes change in service pattern for Challenger Airlines Company, so as to permit the carrier to omit certain night stops on route No. 74 until adequate night lighting facilities are available; denies request of Inland Airlines objecting to Challenger's application (Aug. 18).

E-3160 grants Parker Air Service exemption from the requirements of § 291.2 of the Economic Regulations, so as to permit the carrier to employ one Lockheed 10-A aircraft with a maximum allowable gross weight of 10,500 pounds in its operation as a small irregular carrier (Aug. 18).

E-3161 approves application of Southern Airways for a loan from the Reconstruction Finance Corporation in the amount of \$120,000 (Aug. 18).

E-3162 grants Eastern Air Lines leave to intervene in the matter of the application of British West Indian Airways for a foreign air carrier permit; denies objection of British West Indian Airways (Aug. 19).

E-3163 supplemental opinion and order in the *Skycruise* case deny applications of Resort Airlines and American Air Export and Import Company, for certificates authorizing all-expense escorted tours between terminal points and resort areas within the United States (Aug. 19).

E-3164 authorizes change in service pattern for All American Airways on route No. 97 for a period of 18 months (Aug. 19).

E-3165 denies application of United Air Lines requesting exemption from the requirements of the Act, so as to permit free transportation to the Treasury Department between points in the United States (Aug. 22).

E-3166 grants Northwest Airlines permission to serve New York City on its routes through the use of New York International Airport, on or after September 1, 1949 (Aug. 22).

E-3167 amends foreign air carrier permit issued to KLM Royal Dutch Airlines; approved by the President August 19, 1949 (June 17).

E-3168 reissues an amended certificate to TWA so as to redesignate "Newfoundland" as "Newfoundland, Canada" (Aug. 23).

E-3169 denies petition of American Air Transport for reconsideration of the Board's order serial No. E-2792, dated May 5, 1949, which denies exemption from the provisions of the Act, so as to permit the carrier to provide a low-cost class service between New York City and San Juan, P. R. (Aug. 23).

E-3170 grants Western Air Lines authority to suspend service temporarily at Jackson, Wyo., effective September 16, 1949, until June 15, 1950 (Aug. 23).

E-3171 denies petition of American Airlines for reconsideration of order serial No. E-2838, dated May 19, 1949; grants temporary exemption from the provisions of § 401 (a) of the Act, so as to permit the carrier to engage in air transportation of persons, property, and mail to and from White Plains, N. Y., on routes Nos. 4, 7, and 25 through the use of Westchester County Airport (Aug. 24).

E-3172 orders that the hearing examiner issue a subpoena for certain data to Trans-Canada Air Lines, in the matter of its application for a foreign air carrier permit; denies motion of Colonial Airlines for postponement (Aug. 25).

E-3173 orders investigation of, and suspends for 90 days, certain fares, rules, and routings proposed by Pan American Airways (Aug. 25).

E-3174 grants Robinson Airlines Corporation permission to serve New York City on route No. 94, through the use of Newark Municipal Airport, on or after September 1, 1949 (Aug. 25).

E-3175 orders that certain parties be considered interveners and applicants in the *Parks Investigation* case (Aug. 25).

E-3176 grants the city of Jackson, Tenn., leave to intervene in the *Parks Investigation* case; denies its petition for reconsideration of order serial No. E-2978, so as to include amendment of *Parks* certificate to authorize service between Jackson and Nashville, Tenn. (Aug. 25).

E-3177 grants Braniff Airways permission to serve Balboa, Canal Zone, through the use of Tocumen National Airport, on or after September 1, 1949 (Aug. 26).

E-3178 grants Southwest Airways Company permission to serve Oroville and Paso Robles, Calif., on route No. 76 on or after September 1, 1949, through the use of the Oroville Municipal Airport at Paso Robles, San Luis Obispo County Airport, respectively (Aug. 26).

E-3179 terminates suspension of letter of resignation No. 142 issued to Onward Sky Freight (Aug. 26).

E-3180 denies motion of Colonial Airlines requesting further procedural delay in the matter of the application of Trans-Canada Air Lines for a foreign air carrier permit (Aug. 26).

E-3181 dismisses complaint of Alaska Coastal Airlines requesting the Board to investigate and suspend certain fares proposed by the Air Service (Aug. 26).

E-3182 orders Trans-Texas Airways to show cause why the Board should not fix certain temporary mail rates over its entire system; orders that the proceeding remain open pending a final fare (Aug. 26).

E-3183 institutes an investigation in the matter of certain tariff rules concerning the liability of air carriers in interstate and overseas air transportation (Aug. 26).

E-3184 approves agreement between Pan American and Lineas Aereas Mexicanas (Lamas) relating to passenger traffic (Aug. 29).

E-3185 approves agreement between United and Northwest relating to exchange of public address systems (Aug. 29).

E-3186 approves agreement between Pan American and Delta relating to passenger traffic (Aug. 29).

E-3187 approves agreement between Braniff and Monarch relating to international interline traffic (Aug. 29).

E-3188 approves agreement between Eastern and TWA relating to loss of enroute to Eastern by TWA (Aug. 29).

E-3189 approves agreement between United and Lineas Aereas Venezolanas relating to interline traffic (Aug. 29).

E-3190 approves agreement between TWA and Orient Airways relating to interline traffic (Aug. 29).

<sup>1</sup> See Civil Aeronautics Board Regulations Serial Number 193, adopted October 10, 1941.

<sup>2</sup> For the convenience of the public, the entire text of Part 45 is set forth as amended.

<sup>3</sup> Under circumstances where it is doubtful whether the operations are for "compensation or hire," the test to be applied is whether the air carriage is merely incidental to the operator's other business or is, in and of itself, a major enterprise for profit.

<sup>4</sup> The term "point" as used in this section shall have the same meaning as that established by Section 291.1 (b) of the Board's Economic Regulations. Section 291.1 (b) defines point to include "any airport or place where aircraft may be landed or taken off, including the area within a 25-mile radius of such airport or place."

<sup>5</sup> Note that an air carrier holding an air carrier operating certificate issued under the provisions of Part 42 may not conduct intrastate operations with the frequency specified in § 45.3 (a) without first obtaining a commercial operator certificate.



# Civil Aviation Highlights

	1949	1948
<b>Airports recorded with CAA, October 1.</b>		
By type:		
Commercial	2,662	3,013
Municipal	2,180	2,003
CAA Intermediate	112	162
Military	366	403
All others	1,066	743
<b>Civil airports by class:</b>		
Total	6,050	5,921
Class I and under	4,012	3,990
Class II	983	920
Class III	479	442
Class IV	368	358
Class V	133	131
Class VI and over	75	75
Total U. S. civil aircraft, Oct. 1.	92,491	97,025
Scheduled air carrier aircraft, Oct. 1.	1,097	1,059
<b>Civil aircraft production, August</b>		
Total	272	709
1- and 2-place models	84	242
3-, 4- and 5-place models	179	432
Over 5-place models	9	26
<b>Certificates approved, August</b>		
Student pilots	5,537	8,529
Private pilots	3,585	10,116
Commercial pilots	733	862
Airline transport pilots	95	121
Mechanics (original certificates)	613	1,611
Ground instructors (original certificates)	122	144
Flight instructor ratings	238	388
Instrument ratings	117	170
Control tower operators	133	212
<b>Traffic control activity, August</b>		
Aircraft operations, CAA airport towers	1,616,041	1,795,708
Fix postings, CAA airway centers	862,763	834,024
<b>Airport Operations</b>		
<b>Washington National, September</b>		
<b>Scheduled air carrier:</b>		
Passengers departing	64,219	56,008
Passengers arriving	65,803	57,005
Aircraft arrivals and departures	10,010	10,013
Other aircraft arrivals and departures	3,590	3,843
<b>Scheduled air carrier:</b>		
Passengers departing	51,010	45,230
Passengers arriving	49,968	46,205
Aircraft arrivals and departures	6,991	6,589
Other aircraft arrivals and departures	4,206	5,233
<b>Oakland Municipal, August</b>		
<b>Scheduled air carrier:</b>		
Passengers departing	5,437	7,288
Passengers arriving	4,714	5,360
Aircraft arrivals and departures	4,363	4,362
Other aircraft arrivals and departures	18,243	18,697
<b>Miami International, August</b>		
<b>Scheduled air carrier:</b>		
Passengers departing	41,533	38,715
Passengers arriving	41,841	40,765
Aircraft arrivals and departures	7,853	6,994
Other aircraft arrivals and departures	9,468	8,379

<sup>1</sup> Airport type definitions: Commercial—Public use and public services, privately owned and operated. Municipal—Public use and public services, municipally owned and/or operated. CAA Intermediate—Public emergency use, no services, CAA operated. Military—Public restricted, military operated. All others—(a) Public emergency use only, no public services, privately owned for personal use; (b) Public emergency use only, no public services, Government-owned Forest Service, etc.

Lines, relating to joint operation of ticket offices in the state of Wyoming (Sept. 12).

E-3277 approves agreements between Pan American and Transocean Air Lines and Pacific Overseas Airlines, relating to ground facilities and services at Midway, Wake, and Guam (Sept. 12).

E-3278 approves agreement between Mid-Continent and American, relating to joint facilities and services at Joplin, Mo. (Sept. 12).

E-3279 approves agreement between TWA and Arab Airways Association, relating to handling of international air cargo (Sept. 12).

E-3280 approves agreements between American Airlines, American Overseas Airlines, and Ethiopian Air Lines, relating to standard IATA interline traffic agreement and amendment thereto (Sept. 12).

E-3281 approves agreement between United and Inland Air Lines, relating to the furnishing of ground services to Inland at North Platte, Neb. (Sept. 12).

E-3282 approves agreement between Empire Air Lines and United, relating to public address system service at Walla Walla Municipal Airport (Sept. 12).

E-3283 approves agreements between United and Mid-Continent, relating to United furnishing meal service at Omaha (Sept. 12).

E-3284 approves agreement between Pan American and Swiss Air Transport Company, relating to the use of GCA facilities at Gander, Newfoundland (Sept. 12).

(Continued on page 129)

E-3191 approves agreement between Continental, TWA, United, and Mid-Continent, relating to exchange of information relative to passenger space (Aug. 29).

E-3192 approves agreement between Chicago and Southern, American, Mid-Continent, Northwest, and Capital relating to exchange of information relative to passenger space (Aug. 29).

E-3193 approves agreement between American and National relating to exchange of information relative to passenger space (Aug. 29).

E-3194 approves agreement between United and Qantas Empire Airways, relating to interline passenger traffic (Aug. 29).

E-3195 approves agreement between Braniff and Aerovias de Mexico, relating to employees' discount on normal all-year fares (Aug. 29).

E-3196 approves agreements between American and Robinson Airlines Corporation relating to joint facilities and services at Rochester, N. Y. (Aug. 29).

E-3197 grants certain parties leave to intervene in the matter of the application of American Airlines requesting change of airport serving Springfield, Mass. (Aug. 29).

E-3198 denies petitions of certain parties requesting reconsideration and reopening of the *Arizona-New Mexico* case (Aug. 30).

E-3199 approves consolidation of application of Monarch for an amendment of its certificate and joint application of Monarch and Arizona Airways, the proceeding to be known as the *Arizona-Monarch Merger* case (Aug. 30).

E-3200 denies application of Northwest Airlines for a temporary exemption which would permit the carrier to serve Itami Airport located in Hyogo Prefecture, Japan (Aug. 30).

E-3201 orders that the proceedings of investigation relative to certain "skycoach" fares proposed by Northwest Airlines, Dockets Nos. 3841 and 4003, be consolidated with the complaint of Capital Airlines in Docket No. 3984 (Aug. 30).

E-3202 denies application of Southwest Airways requesting change in service pattern so as to authorize flag-stop service, except to the extent heretofore granted in the *Additional California-Nevada Service* case; amends order serial No. E-2935, so as to require that Southwest file a report with the Board after the completion of each 90-day period of operations (Aug. 30).

E-3203 authorizes change in service pattern for Empire and Wisconsin Central so as to permit the carriers to render flag-stop service on their routes Nos. 78 and 86, respectively; grants United leave to intervene (Aug. 30).

E-3204 rescinds order serial No. E-711, dated July 22, 1947, which authorized National Airlines to suspend service temporarily at New Bern, N. C. (Aug. 30).

E-3205 orders the proceeding reopened in the matter of the Board's opinion and order (order serial No. E-2843) so as to permit further reargument and reconsideration in the matter of the selection of the carrier or carriers to operate all or part of the route between the terminal point Fairbanks and certain points in Alaska; (approved by the President August 30, 1949) (Aug. 17).

E-3206 authorizes change in service pattern for Challenger Airlines on its route No. 74 (Aug. 30).

E-3207 through E-3218 approve, subject to certain conditions, agreements embodied in the resolutions of various meetings of IATA Traffic Conferences (Aug. 30).

E-3219 opinion and order approve, temporarily, application of American and Delta for approval of an agreement for interchange of equipment, pending disposition of the consolidated proceeding in Docket No. 1102, et al. (Aug. 30).

E-3220 orders Inter-American Airways to show cause why the Board should not revoke its letter of registration No. 1440 for knowing and willful violations of the Act and of the Economic Regulations (Aug. 31).

E-3221 dismisses without prejudice application of S. S. W. for a certificate of public convenience and necessity (Aug. 31).

E-3222 grants the Syracuse, N. Y., Chamber of Commerce leave to intervene in the *Service to Toronto* case (Aug. 31).

E-3223 approves interlocking relationships existing as a result of the holding of certain positions by Roland P. Monson in Pan American Airways and Pan American Airways Corp. (Aug. 31).

E-3224 approves interlocking relationships existing as a result of the holding of certain positions by Erwin Ballouder in Pan American Airways, Pan American-Graze Airways, and Urbana, Medellin and Central Airways (Aug. 31).

E-3225 grants, subject to certain conditions, Reed Pignam, d. b. a. American Flyers, exemption from the provisions of § 291.18 of the Economic Regulations, so as to permit the transfer of letter of registration No. 907 to American Flyers, Inc., a corporation (Aug. 31).

E-3226 denies petition of Eastern Air Lines requesting the Board to define the issues, and other relief, in the matter of the investigation of the routes and property of National Airlines (Aug. 31).

E-3227 denies motion of Braniff Airways for an immediate hearing on its application for a route from Havana to Washington and New York and certain other points (Aug. 31).

E-3228 orders a public hearing held before an examiner of the Board in the matter of the joint application of Price Campbell and Pioneer Air Lines for approval of certain interlocking relationships (Aug. 31).

E-3229 grants Northwest Airlines permission to serve Newark, N. J., on its routes through the use of New York International Airport, on or after September 1, 1949 (Sept. 1).

E-3230 opinion and order approve, subject to certain conditions, agreements embodied in the resolutions of IATA traffic conferences relative to adopting the passenger ticket and baggage check and air waybill/consignment note and incorporated "conditions of carriage" (Sept. 1).

E-3231 fixes the mail rate for Empire Air Lines over its entire system (Sept. 1).

E-3232 dismisses petition of Eastern for leave to intervene in the matter of the application of Trans-Canada Air Lines for a foreign air carrier permit (Sept. 2).

E-3233 grants Alaska Airlines temporary exemption from the provisions of Title IV of the Act, so as to permit the carrier to continue to engage in air transportation of persons and property pursuant to its contract N006S-23963 with the United States Navy Department; grants Wien Alaska Airlines leave to intervene (Sept. 2).

E-3234 grants the city of Syracuse, N. Y., leave to intervene in the *Service to Toronto* case (Sept. 2).

E-3235 through E-3240 approves agreements between United Air Lines and certain foreign air carriers, relative to amendments to standard IATA interline traffic agreements (Sept. 2).

E-3241 disapproves agreement between Cia. de Aviacion Faucett, Aerovias Peruanas, and Pan American-Graze Airways, relating to operations within the Republic of Peru (Sept. 2).

E-3242 defers for reconsideration motion of Island Air Ferries for severance and consolidation of certain portions of the *Service in New England States* case; grants Air Commuting leave to intervene in the New England case; denies motion of Island requesting denial of Air Commuting for leave to intervene (Sept. 2).

E-3243 amends order serial No. E-1963 so as to grant Slick Airways extension of temporary exemption from the provisions of § 401 (a) of the Act, and Part 295 of the Economic Regulations so as to permit the carrier to engage in air transportation of military property only between certain United States Air Force bases (Sept. 6).

E-3244 dismisses complaint of Capital Airlines in the matter of certain air freight rates proposed by Northwest and Capital (Sept. 6).

E-3245 orders investigation of, and suspends for 90 days, certain fares, rules, and regulations proposed by United Air Lines (Sept. 6).

E-3246 grants the city of Quincy, Ill., and the Quincy Chamber of Commerce leave to intervene in the *Parks Investigation* case (Sept. 6).

E-3247 denies request of the city of Quincy, Ill., and the Quincy Chamber of Commerce for consolidation of their application, Docket No. 4042, with that the *Parks Investigation* case, Docket No. 3965 et al. (Sept. 6).

E-3248 denies request of United Airmotive, Inc., for an exemption authorizing the carrier to engage in air transportation between Anchorage and Big Lake, Alaska, pending hearing on its application for a certificate (Sept. 6).

E-3249 grants F. A. Conner, d. b. a. Conner Air Lines, exemption from the provisions of § 291.18 of the Economic Regulations, so as to permit the transfer of letter of registration No. 1627 to Conner Air Lines, Inc., a Florida corporation (Sept. 6).

E-3250 orders Peninsular Air Transport to show cause why its letter of registration No. 723 should not be revoked for knowing and willful violation of the Act; orders Associated Airlines Agency and National Aircraft Systems to show cause why each should not be ordered to cease and desist from engaging in air transportation within the meaning of the Act (Sept. 8).

E-3251 fixes the mail rate for Challenger Airlines over its entire system (Sept. 8).

E-3252 approves agreement between Wial Alaska Airlines and Lon Brennan Air Service and Robert Dale Byers relating to transportation of mail between Manley Hot Springs, Alaska, and Tofte, Alaska (Sept. 8).

E-3253 authorizes All American Airways to omit service to Cumberland, Md., on flights over segment No. 1 of route No. 97, requiring landings at Cumberland Municipal Airport during hours of darkness, provided that the carrier shall serve Cumberland on at least one daily round trip flight (Sept. 8).

E-3254 grants the Jackson County Chamber of Commerce of Medford, Ore., leave to intervene in the matter of renewal of temporary certificate for route No. 76 held by Southwest Airways Company, and the temporary suspension of certain service by United Air Lines (Sept. 8).

E-3255 grants Pan American-Graze Airways permission to serve Balboa, Canal Zone, on or after September 10, 1949, through the use of Tocumen National Airport (Sept. 8).

E-3256 grants Robinson Airlines permission to serve Syracuse, N. Y., on route No. 94 on or after September 17, 1949, through the use of Clarence E. Hancock field (Sept. 9).

E-3257 fixes the temporary mail rate for Trans-Texas Airways over its entire system (Sept. 9).

E-3258 approves cancellation of agreement between American Airlines and TWA, relating to lease of space in building on Municipal Airport, Albany, N. Y. (Sept. 12).

E-3259 grants the Postmaster General, Eastern Air Lines, and Piedmont Aviation leave to intervene in the matter of the application of the city of Lumberton, N. C., for amendment of existing certificates to provide that city with air service (Sept. 12).

E-3260 grants American Airlines permission to serve Syracuse, N. Y., on route No. 7, on or after September 1, 1949, through the use of Clarence E. Hancock Field (Sept. 12).

E-3261 approves cancellation of agreements between United and Mid-Continent, relating to aircraft maintenance at Omaha and Des Moines (Sept. 12).

E-3262 approves cancellation of agreement between American Airlines and TWA, relating to sale of gasoline and lubricating oil (Sept. 12).

E-3263 approves cancellation of agreement between American Airlines and Capital Airlines, relating to rental of space (Sept. 12).

E-3264 approves cancellation of agreement between Capital and Eastern, relating to air conditioning service (Sept. 12).

E-3265 approves cancellation of agreements between United and Scandinavian Airlines System, relating to sale of international passenger traffic over each other's routes (Sept. 12).

E-3266 approves cancellation of agreement between United and Scandinavian Airlines System, relating to interline cargo traffic (Sept. 12).

E-3267 approves cancellation of agreements between United and British Overseas Airways, relating to exchange of passengers between the parties (Sept. 12).

E-3268 approves agreement between Pan American and American Overseas Airlines, relating to sublease of space at Gander Airport, Newfoundland (Sept. 12).

E-3269 approves agreement between Chicago and Southern and Arkansas Aviation Service, relating to rental of space (Sept. 12).

E-3270 approves agreement between Braniff and Continental Air Lines, relating to joint station operations services at Lubbock, Tex. (Sept. 12).

E-3271 approves agreement between Pan American and Trans-Canada Air Lines, relating to the provision of services and facilities by Pan American Airways at Munich, Germany (Sept. 12).

E-3272 approves agreements between United and certain other carriers, relating to interline traffic (Sept. 12).

E-3273 approves agreement between United and Eastern, relating to amendment to standard IATA interline traffic agreement (Sept. 12).

E-3274 approves agreement between American Airlines and Airfield Service Company, relating to the transportation of passengers to, from, and between the Bond Hotel and Bradley Field, Conn. (Sept. 12).

E-3275 approves agreements executed by Air Cargo, Inc., on behalf of and as agent for various air carrier parties with local cartage carriers, relating to pick-up and delivery of air freight (Sept. 12).

E-3276 approves agreement between United and Inland Air

# Regulations of The Administrator

(Through October 31, 1949)

NOTE: All Regulations of the Administrator in effect on June 30, 1949, were published in the Federal Register, part II, section 2, July 16, 1949, which is on sale at 20 cents a copy by the Superintendent of Documents, United States Government Printing Office, Washington 25, D. C. Dates on which all amendments issued subsequent to June 30, 1949, were published in the Federal Register are given in parentheses, with the price of that issue of the Federal Register. Parts marked with an asterisk (\*) may be obtained separately from the Superintendent of Documents at the indicated prices. Remit check or money order, made payable to the Superintendent of Documents, directly to the Government Printing Office, Washington 25, D. C.

- \*Part 405—Procedure of the Civil Aeronautics Administration.
- \*Part 406—Rules of Practice Governing Proceedings to Alter, Amend, or Modify Certificates. (5¢.)
- \*Part 407—Seizure of Aircraft. (5¢.)
- \*Part 450—Inter-American Aviation Training Grants. (5¢.)
- \*Part 501—Aircraft Registration Certificates. (5¢.)
- \*Part 502—Dealers' Aircraft Registration Certificates. (5¢.)
- \*Part 503—Recordation of Aircraft Ownership. (5¢.)
- \*Part 504—Recordation of Encumbrances Against Specifically Identified Aircraft Engines. (5¢.)
- \*Part 505—Recordation of Encumbrances Against Aircraft Engines, Propellers, Appliances, or Spare Parts. (5¢.)
- \*Part 550—Federal Aid to Public Agencies for Development of Public Airports. (10¢.)
- Amendment 1. (August 11, 1949. 15¢.)
- Amendment 2. (September 1, 1949. 15¢.)
- \*Part 555—Acquisition of Government-owned Lands for Public Airport Purposes. (5¢.)
- \*Part 560—Reimbursement for Damage to Public Airports by Federal Agencies. (10¢.)
- Part 570—Washington National Airport. (Oct. 14, 1949. 15¢.) (New Part 570 supersedes Part 571, revoked Oct. 14, 1949.)
- \*Part 600—Designation of Civil Airways (including amendments 1 through 18). (10¢.)
- Amendment 19. (July 28, 1949. 15¢.)
- Amendment 20. (Sept. 30, 1949. 15¢.)
- Amendment 21. (Oct. 15, 1949. 15¢.)
- \*Part 601—Designation of Control Areas, Control Zones, and Reporting Points (including amendments 1 through 22). (15¢.)
- Amendment 23. (July 28, 1949. 15¢.)
- Amendment 24. (Sept. 30, 1949. 15¢.)
- Amendment 25. (Oct. 15, 1949. 15¢.)
- Part 609—Standard Instrument Approach Procedure.
- Part 625—Notice of Construction or Alteration.
- Part 635—Reproduction and Dissemination of Current Examination Materials.

## CAA and CAB Releases

Copies of CAA releases may be obtained from the CAA Office of Aviation Information. CAB releases are obtainable from the Public Information Section of the Board. Both offices are located in the Department of Commerce Building, Washington 25, D. C.

### Administration

Childress Head of New CAA Aviation Extension Division—(Oct. 3).

Public Urged to Report "Buzzing" Pilots to CAA—(Oct. 5).

CAA Study Shows Plane Distribution—(Oct. 6).

Airport Advisory Committee Makes First Recommendations—(Oct. 10).

CAA Hunts for Words Best Understood by Pilots—(Oct. 13).

CAA Announces New Policy for Airport Construction—(Oct. 13).

Remarks by D. W. Rentzel, Administrator of Civil Aeronautics, entitled "Dedication of New York International Airport at Federal Building," given at Jamaica, N. Y., September 13, 1949.

### Board

Financial Statistics for the Second Quarter of 1949—(CAB 49-82) Oct. 4, 1949.

Board Announces Hearing on Cessna Accident in Los Angeles—(CAB 49-83) Oct. 1, 1949.

Board Announces Annual Review of Airworthiness Parts of the Civil Air Regulations—(CAB 49-84) Oct. 12, 1949.

## Scheduled Air Carrier Operations

(Source: CAB Form 41)

Domestic: January–August, 1949, 1948

Operator	Revenue miles		Revenue passengers		Revenue passenger-miles (000)		Passenger seat-miles (000)	
	January–August		January–August		January–August		January–August	
	1949	1948	1949	1948	1949	1948	1949	1948
<b>Trunk Lines</b>								
American Airlines	36,718,365	36,432,871	2,136,821	1,753,677	1,000,484	815,829	1,523,368	1,387,210
Branniff Airways	7,640,249	7,226,248	390,805	367,451	130,465	127,672	251,005	229,722
Capital Airlines	13,995,607	11,424,479	791,077	674,775	232,454	178,536	451,407	367,553
Chicago & Southern Air Lines	4,996,982	4,550,083	201,797	182,149	71,034	69,882	132,766	119,958
Colonial Airlines	2,668,241	1,917,231	129,966	90,715	33,960	25,090	55,973	39,982
Continental Airlines	3,826,562	3,701,012	119,409	106,755	43,247	39,157	105,770	76,250
Delta Air Lines	8,639,668	8,714,356	354,304	320,108	143,400	122,554	250,952	234,842
Eastern Air Lines	35,530,706	33,025,624	1,491,496	1,341,800	683,988	674,584	1,194,448	1,118,976
Inland Air Lines	1,782,086	1,539,822	56,335	48,896	20,688	17,980	35,417	30,258
Mid-Continent Airlines	5,602,745	5,229,295	223,926	207,125	66,434	61,681	117,658	104,594
National Airlines	6,563,385	3,317,825	201,440	96,678	114,758	52,585	250,614	138,329
Northeast Airlines	2,632,199	2,234,428	224,013	181,959	42,603	34,849	84,328	74,153
Northwest Airlines	12,890,422	11,363,033	470,798	427,971	263,122	225,961	450,235	391,553
Transcontinental & Western Air	33,809,878	35,585,525	930,153	893,653	627,105	571,326	1,045,925	934,262
United Air Lines	31,767,056	38,790,496	1,465,351	1,258,178	854,875	760,395	1,233,557	1,141,718
Western Air Lines	4,136,413	4,206,412	184,325	183,426	69,665	72,110	140,858	128,242
Trunk total	214,990,519	209,258,740	9,375,016	8,015,316	3,398,282	3,850,195	7,321,281	6,517,602
Index (1948=100)	102.71	100.00	116.53	100.00	114.21	100.00	112.38	100.00
<b>Feeder Lines</b>								
All American Airways	1,634,459	1,164,140	41,154	0	5,366	0	24,585	0
Challenger Airlines	1,096,700	913,136	21,341	14,257	5,794	3,589	22,155	18,669
Empire Air Lines	703,595	655,095	22,623	13,759	4,821	2,965	11,776	11,842
Florida Airways (ceased opr. 3/28/49)	193,120	519,156	3,026	8,319	409	1,118	1,542	4,316
Los Angeles Airways	230,185	174,073	0	0	0	0	0	0
Monarch Air Lines	1,150,352	1,069,611	20,105	18,753	5,023	4,411	21,105	19,263
Piedmont Aviation	1,919,247	855,678	53,796	20,422	11,603	4,858	40,305	17,966
Pioneer Air Lines	2,550,929	2,080,379	67,098	57,757	18,349	15,334	61,410	50,094
Robinson Airlines	558,361	—	26,249	—	3,918	—	11,074	—
Southern Airways (6/10/49)	214,819	—	2,827	—	463	—	4,571	—
Southwest Airways	1,609,587	1,526,430	77,620	60,377	14,249	10,976	33,803	31,980
Trans-Texas Airways	1,837,314	1,062,234	28,664	11,079	6,898	2,615	38,583	22,726
West Coast Airlines	844,220	819,794	47,530	47,397	6,183	5,853	17,729	15,779
Wisconsin-Central Airlines	983,264	438,673	20,264	6,357	3,084	1,125	8,35	3,860
Feeder total	15,526,182	11,328,399	432,297	258,477	86,160	52,864	299,973	196,105
Index (1948=100)	137.06	100.00	167.25	100.00	162.98	100.00	152.73	100.00
<b>Territorial Lines</b>								
Caribbean-Atlantic Airlines	409,931	273,196	59,733	50,272	4,380	3,145	10,052	6,940
Hawaiian Airlines	1,928,666	2,222,876	215,169	239,904	29,582	33,882	42,452	49,118
Territorial total	2,338,597	2,496,072	274,902	290,176	33,962	37,027	52,504	56,058
Index (1948=100)	93.69	100.00	94.71	100.00	91.72	100.00	93.66	100.00
Grand total	232,855,298	223,083,211	10,082,215	8,593,969	3,418,040	3,940,086	7,676,758	6,770,065
Index (1948=100)	104.38	100.00	117.32	100.00	114.68	100.00	113.39	100.00

Operator	Revenue pas- senger-load factor (percent)		Ton-miles flown							
			Express		Freight		U. S. Mail			
	January–August		January–August		January–August		January–August			
	1949	1948	1949	1948	1949	1948	1949	1948		
Trunk lines										
American Airlines	65.68	58.81	3,267,107	3,522,968	19,041,894	12,414,574	5,705,840	4,667,940		
Branniff Airways	51.98	55.58	498,384	568,404	670,273	718,342	690,387	585,739		
Capital Airlines	51.50	48.57	992,946	1,254,884	4,165,181	2,883,696	654,583	533,574		
Chicago & Southern Air Lines	53.50	58.26	333,390	401,761	370,012	352,205	340,451	283,837		
Colonial Airlines	60.67	62.75	38,912	34,419	68,178	20,182	61,781	50,077		
Continental Air Lines	40.89	51.35	62,932	64,671	235,144	168,529	137,665	109,705		
Delta Air Lines	57.14	52.19	438,231	557,683	1,095,766	1,076,688	579,029	575,786		
Eastern Air Lines	57.26	60.29	2,173,970	2,378,764	5,268,570	3,293,361	3,168,315	2,683,296		
Inland Air Lines	58.41	59.42	42,650	34,808	86,288	49,136	78,611	65,668		
Mid-Continent Airlines	56.46	58.97	129,730	124,045	216,715	181,859	204,430	181,052		
National Airlines	45.79	38.01	308,183	377,832	694,543	463,518	370,459	173,732		
Northeast Airlines	50.52	47.00	52,020	64,564	144,154	113,150	57,631	41,706		
Northwest Airlines	58.44	57.71	1,022,171	1,099,501	2,779,269	1,176,345	1,578,642	1,358,812		
Transcontinental & Western Air	59.96	61.15	2,961,202	3,671,625	7,374,739	5,760,745	5,869,713	5,653,162		
United Air Lines	69.30	66.60	3,777,374	4,530,095	14,659,185	12,066,284	6,544,249	5,408,839		
Western Air Lines	49.46	56.23	171,358	193,459	282,877	427,365	228,266	291,832		
Trunk total	60.65	59.07	16,270,560	18,879,393	57,152,788	41,165,979	26,270,055	22,664,757		
Index (1948=100)	101.66	100.00	86.18	100.00	138.34	100.00	115.91	100.00		
Feeder Lines										
All American Airways	21.83	—	30,890	21,707	0	0	27,840	24,961		
Challenger Airlines	26.15	19.22	22,377	11,852	49,036	24,082	25,853	19,433		
Empire Air Lines	32.63	25.21	9,210	5,396	0	0	13,398	13,571		
Florida Airways (ceased opr. 3/28/49)	26.52	25.90	660	2,683	0	0	1,812	5,010		
Los Angeles Airways	—	—	0	0	0	0	28,722	15,575		
Monarch Air Lines	23.80	22.90	12,787	9,775	55,217	53,400	16,385	16,300		
Piedmont Aviation	28.79	27.04	22,503	8,295	34,905	5,861	19,992	9,316		
Pioneer Air Lines	29.88	30.67	18,374	12,611	42,285	20,610	53,368	37,162		
Robinson Airlines	35.38	—	0	0	10,368	—	11,166	—		
Southern Airways (6/10/49)	10.13	—	4,208	—	0	—	3,562	—		
Southwest Airways	42.15	34.32	21,689	19,002	60,195	46,731	31,914	27,304		
Trans-Texas Airways	17.88	11.51	12,455	5,102	9,129	3,097	39,861	13,975		
West Coast Airlines	34.88	37.09	8,297	6,784	0	0	6,477	8,047		
Wisconsin-Central Airlines	37.00	29.15	12,364	6,565	0	0	12,024	5,770		
Feeder total	28.72	26.92	175,761	109,775	261,135	133,811	292,374	196,424		
Index (1948=100)	106.69	100.00	160.11	100.00	169.78	100.00	148.85	100.00		
Territorial Lines										
Caribbean-Atlantic Airlines	43.57	45.32	0	0	21,701	4,313	5,205	3,560		
Hawaiian Airlines	69.68	68.98	82,911	88,181	375,860	366,703	38,186	24,589		
Territorial total	64.68	66.05	82,911	88,181	397,561	371,016	43,391	28,149		
Index (1948=100)	97.93	100.00	94.02	100.00	107.15	100.00	154.15	100.00		
Grand total										
Index (1948=100)	101.13	100.00	86.54	100.00	138.67	100.00	116.24	100.00		



## CAB Official Actions

(Continued from page 127)

E-3285 authorizes Northwest Airlines to suspend service temporarily at Shanghai, China, on its international route between the United States and the Orient, for a period of 6 months or until it is able to resume regular scheduled service (Sept. 12).

E-3286 approves agreement between Railway Express Agency and Challenger Airlines Company, relating to substitution of name (Sept. 12).

E-3287 denies application of Inland Air Lines requesting exemption from the provisions of § 401 (a) of the Act, which would permit direct service between Casper, Wyo., and Rapid City, S. Dak., and for expeditious treatment of its application in Docket No. 3819 (Sept. 13).

E-3288 denies application of United, requesting an exemption from the terms, conditions, and limitations of the restriction contained in its amended certificate for route No. 1 (Sept. 13).

E-3289 rescinds order serial No. E-341, dated February 25, 1947, insofar as it authorizes Wiggins Airways to suspend service temporarily at Pittsfield, Mass. (Sept. 13).

E-3290 opinion and order issue as amended foreign air carrier permit to Scandinavian Airlines System (Approved by the President September 13, 1949) (Aug. 24).

E-3291 amends order serial No. E-2895, dated May 31, 1949, so as to extend temporary exemption from Part 291 of the Economic Regulations granted to Alaska Airlines (Sept. 14).

E-3292 amends order serial No. E-2320, dated December 24, 1948, so as to authorize Pioneer Air Lines to change its service pattern (Sept. 14).

E-3293 approves agreements between Braniff and Continental, relating to joint services and facilities at Colorado Springs, Colo. (Sept. 14).

E-3294 approves agreement between American and TWA, relating to use of space jointly in Ohio at the Municipal Airport (Sept. 14).

E-3295 approves agreement between American Airlines, American Overseas Airlines, and Challenger Airlines, relating to interline traffic (Sept. 14).

E-3296 approves agreement between Inland Air Lines and Challenger Airlines, relating to joint facilities at Casper, Wyo. (Sept. 14).

E-3297 approves agreement between Northeast Airlines and Scandinavian Airlines System, relating to interline traffic (Sept. 14).

E-3298 approves agreement between United and Santa Catalina Island Company, relating to the sale of tickets by Santa Catalina's agents (Sept. 14).

E-3299 approves agreement between United and Catalina Air Transport, relating to use of aircraft cabin attendant (Sept. 14).

E-3300 approves agreements between Chicago and Southern Air Lines and Eastern relating to joint use of fork lift equipment (Sept. 14).

E-3301 approves agreement between TWA and Braniff, relating to aircraft refueling service (Sept. 14).

E-3302 approves agreement between Piedmont Aviation and Pennington Flying Service, relating to routine inspection of aircraft (Sept. 14).

E-3303 approves agreement between TWA and Chicago and Southern Air Lines, relating to consolidated ground services and facilities at Terre Haute, Ind. (Sept. 14).

E-3304 approves agreement between Pan American and American relating to experimental operation of air-borne radar equipment (Sept. 14).

E-3305 approves agreement between Delta and Capital relating to joint ticket office (Sept. 14).

E-3306 approves agreement between United, Catalina Island Steamship Line, and Santa Catalina Island Company, relating to selling of boat tickets and reserving hotel rooms on Catalina Island (Sept. 14).

E-3307 approves agreement between American Airlines, American Overseas Airlines, and Indian Overseas Airlines, relating to interline traffic (Sept. 14).

E-3308 approves agreement between Pan American and Airways India, relating to international interline passenger and cargo transportation (Sept. 14).

E-3309 amends order serial No. E-2559, dated March 15, 1949, so as to extend temporary exemption granted to American Airlines, permitting the carrier to operate all-cargo flights between Los Angeles, San Francisco, and Oakland, Calif. (Sept. 14).

E-3310 denies motion of Colonial Airlines, requesting that the Board issue a subpoena ad testificandum to R. C. Vaughn, president of Canadian National Railways, in the matter of the application of Trans-Canada Air Lines for a foreign air carrier permit (Sept. 15).

E-3311 dismisses proceeding of investigation and suspension instituted in Docket No. 3897, relative to certain tariffs proposed by Delta and Eastern (Sept. 15).

E-3312 dismisses proceeding of investigation and suspension instituted in Docket No. 3823, relative to certain tariffs proposed by Pan American (Sept. 15).

E-3313 opinion and order issue amended certificates to Capital and Piedmont, for routes Nos. 14 and 51 and route No. 87, respectively, in the *Service to Newport News, Va.*, case (Sept. 15).

E-3314 orders Arnold Air Service to show cause why it should not be ordered to cease and desist from each and every violation of the Act; orders the proceeding assigned for public hearing before an examiner of the Board (Sept. 16).

E-3315 orders Meteor Air Transport to show cause why the Board should not revoke its letter of registration No. 812, for knowing and willful violations of the Act and of the Economic Regulations (Sept. 16).

E-3316 grants A. Paul Mantz, d. b. a. Paul Mantz Air Services, temporary exemption from the provisions of § 401 (a) of the Act and § 291.23 of the Economic Regulations, so as to permit the carrier to engage in air transportation of persons between Los Angeles, Calif. and Agua Caliente, Mexico, on Sunday of each week (Sept. 16).

E-3317 orders investigation of, and suspends for 90 days, certain fares proposed by Eastern and Delta (Sept. 16).

E-3318 approves agreements between Chicago and Southern Air Lines and Aerovias "Q", relating to international passenger traffic (Sept. 16).

(Continued on page 131)

## Scheduled Air Carrier Operations

(Continued on page 130)

### Domestic: August 1949

Operator	Revenue miles	Revenue passengers	Revenue passenger-miles(000)	Passenger seat-miles (000)	Revenue passenger-load factor (percent)	Ton-miles flown		
						Express	Freight	U. S. Mail
Trunk lines								
American Airlines	5,096,997	296,701	135,967	215,706	63.03	468,555	2,639,327	662,386
Braniff Airways	1,052,404	53,352	17,971	34,236	52.49	69,091	103,033	84,308
Capital Airlines	1,868,435	118,470	34,737	63,610	51.61	145,657	638,738	83,294
Chicago & Southern Air Lines	676,790	27,556	9,053	18,484	48.98	45,729	58,388	40,404
Colonial Airlines	437,581	23,088	5,741	9,145	62.78	5,877	8,597	8,290
Continental Air Lines	500,148	17,964	6,693	14,445	46.33	8,129	32,678	17,263
Delta Air Lines	1,120,257	43,805	16,174	32,297	50.08	56,820	170,354	65,261
Eastern Air Lines	4,365,260	178,535	74,110	147,221	50.34	266,700	612,550	341,569
Inland Air Lines	279,114	8,867	3,476	5,594	62.14	5,451	14,367	10,512
Mid-Continent Airlines	771,955	30,765	9,055	16,211	55.86	20,374	29,192	25,305
National Airlines	853,155	22,391	11,633	29,842	38.98	37,843	82,352	32,690
Northeast Airlines	433,138	42,001	8,088	14,563	55.54	9,981	21,683	7,236
Northwest Airlines	1,854,874	76,324	45,413	70,720	64.22	151,841	390,005	207,904
Transcontinental & Western Air	4,470,559	130,563	88,162	140,013	62.97	406,473	931,552	652,159
United Air Lines	4,998,552	229,518	131,002	178,897	73.23	522,055	2,163,357	846,168
Western Air Lines	591,318	26,047	10,057	20,274	49.61	30,354	30,038	31,046
Trunk total	29,370,837	1,325,947	607,332	1,011,258	60.06	2,250,930	7,926,211	3,115,795
Feeder Lines								
All American Airways	259,013	12,162	1,632	6,216	26.25	5,834	0	3,236
Challenger Airlines	139,402	3,924	1,050	2,788	37.66	1,759	5,337	3,461
Empire Air Lines	93,471	3,363	702	1,963	35.76	1,229	0	1,871
Los Angeles Airways	31,006	0	0	0	0	0	0	3,622
Monarch Air Lines	158,279	3,903	950	2,849	33.35	2,377	6,137	2,266
Piedmont Aviation	274,726	8,690	1,873	5,769	32.47	3,364	5,533	2,285
Pioneer Air Lines	343,883	9,068	2,529	8,255	30.64	2,617	6,801	6,365
Robinson Airlines	84,743	3,773	561	1,654	33.92	0	959	1,794
Southern Airways	111,509	2,476	245	2,387	10.26	2,051	0	1,608
Southwest Airways	209,435	12,441	2,261	4,308	51.41	3,220	6,527	4,214
Trans-Texas Airways	266,014	5,182	1,161	5,586	20.78	2,738	2,432	4,656
West Coast Airlines	123,551	8,644	1,127	2,595	43.43	1,538	0	856
Wisconsin-Central Airlines	173,854	4,596	731	1,500	48.73	2,418	0	2,064
Feeder total	2,268,886	77,222	14,822	45,960	32.25	29,145	33,726	38,328
Territorial Lines								
Caribbean-Atlantic Airlines	48,244	6,951	518	1,135	45.64	0	3,044	584
Hawaiian Airlines	287,324	32,501	4,455	6,049	73.65	8,168	80,112	4,873
Territorial total	335,568	39,452	4,973	7,184	69.22	8,168	83,156	5,457
Grand total	31,975,291	1,442,621	627,127	1,064,402	58.92	2,288,243	8,043,093	3,159,580

### CAA Clarifies New Policy on Airport Construction

(Continued from page 121)

(Where so demonstrated and approved, any additional runway or landing strip must be so located as to provide maximum traffic utility.)

"Class II and larger airports: CAA will participate in the construction of an additional new runway or runways provided that such runway or runways are necessary to expedite traffic and so located as to provide simultaneous use.

"For airport planning purposes CAA will participate in the acquisition of land in excess of that required to comply with the basic policy set forth above when determined necessary for normal expected expansion.

"Exceptions to the above policy will be considered by the Washington office when justified as necessary by the regional administrator.

"For the purpose of clarification and guidance it is desired to emphasize that this policy does not, because of contractual commitments, affect already approved projects."

### Accounting Problems Discussed

"Airport Accounting, Budgeting, and Insurance" is the title of a booklet recently issued by the Civil Aeronautics Administration to assist airport owners and operators in establishing more efficient methods in the management of airports.

The booklet, prepared by CAA's Office of Airports, is on sale for 15 cents a copy by the Superintendent of Documents, Washington 25, D. C.

### CAB Has Plan for Making Regulations Changes Annually

(Continued from page 121)

Aeronautics. The assembled proposals will be made in the form of an agenda for an annual airworthiness meeting of all concerned. A second release will be circulated to the public by July 1 announcing the annual meeting and presenting the agenda. The annual meeting will be scheduled for the first week in August. The purpose of the meeting will be to discuss thoroughly all agenda items so that all available information on each item can be adequately presented. It is expected that the meeting will extend over a period of a few days.

3. As a result of the meeting, all items which are considered necessary and sufficiently developed for regulatory action will be published by October 1 in the form of specific amendments to the Civil Air Regulations. This publication will offer the public a further opportunity of commenting on the proposed annual revision of the airworthiness regulations. All items which are not developed at the meeting to the point where they are ready for Board consideration, but which appear to warrant further investigation, will be reconsidered in the next annual review.

4. Comments received as a result of the publication of the proposed annual revision will be given careful consideration in preparing the final proposed draft of amendments which will be considered by the Board in time for any adopted amendments to be made generally effective by January 1. Such action by the Board will complete an annual cycle.

# Scheduled Air Carrier Operations

(Continued from page 129)

## International and Overseas: January-July, 1948, 1949

Operator	Revenue miles		Revenue passengers		Revenue passenger-miles (000)		Passenger seat-miles (000)		Revenue passenger load factor (percent)	
	January-July		January-July		January-July		January-July		January-July	
	1949	1948	1949	1948	1949	1948	1949	1948	1949	1948
American Airlines	1,300,945	1,320,508	47,026	38,087	38,219	28,183	60,429	51,286	63.25	54.95
American Overseas Airlines	4,140,727	4,126,637	18,188	36,771	100,717	92,170	165,971	157,282	60.66	58.60
Braniff Airways	871,881	157,810	7,202	860	14,553	1,418	39,904	7,693	36.47	18.82
Chicago & Southern Air Lines	904,021	289,274	13,973	7,175	15,401	4,888	44,170	13,029	31.87	37.52
Colonial Airlines	425,364	399,489	8,405	10,997	6,628	8,648	18,692	17,384	35.46	49.75
Eastern Air Lines	440,960	441,116	8,757	9,387	9,534	9,756	22,239	21,588	42.87	39.68
National Airlines	371,972	226,455	33,119	13,753	9,581	4,229	18,068	10,573	53.03	40.00
Northwest Airlines	3,396,702	2,416,007	21,294	14,961	42,580	29,557	81,486	57,186	52.25	51.69
Pan American Airways:										
Atlantic division	8,629,260	7,353,726	74,837	66,235	176,739	157,524	275,971	242,532	64.04	64.95
Latin American division	17,191,617	16,669,433	432,170	404,910	351,603	321,453	625,111	618,105	56.25	52.01
Alaska operations	1,446,955	1,439,689	20,283	17,843	20,533	17,828	41,822	43,021	49.03	41.44
Pacific operations	8,748,749	8,719,646	49,878	48,716	144,557	148,983	223,578	216,643	64.66	68.77
Pan American-Grace Airways	3,363,977	3,287,580	54,631	55,131	62,931	61,141	112,991	102,200	55.70	59.82
Transcontinental & Western Air	7,807,020	6,724,867	56,857	41,174	163,025	129,455	260,135	232,951	62.65	55.57
United Air Lines	1,376,185	1,027,200	16,582	10,563	39,361	25,350	58,538	39,618	67.21	63.99
Uruba, Medellin & Central Airways	60,108	90,352	1,815	1,350	602	449	966	1,141	62.32	31.16
Total	60,776,443	54,689,819	895,017	777,916	1,196,567	1,041,062	2,050,171	1,835,532	58.36	56.72
Index (1948=100)	111.13	100.00	115.05	100.00	114.94	100.00	111.69	100.00	102.89	100.00

Operator	Express		Freight		U. S. Mail		Parcel post	
	January-July		January-July		January-July		January-July	
	1949	1948	1949	1948	1949	1948	1949	1948
American Airlines	0	0	716,884	897,161	77,386	49,282	0	0
American Overseas Airlines	2,400,780	1,112,105	0	0	716,124	764,056	201,772	59,654
Braniff Airways	0	0	119,808	7,234	10,752	1,617	0	0
Chicago & Southern Air Lines	0	0	169,173	56,877	6,230	928	472	0
Colonial Airlines	0	0	43,951	36,574	4,826	4,397	804	242
Eastern Air Lines	0	0	313,263	231,815	31,939	24,291	5,334	0
National Airlines	164,604	121,006	0	0	7,592	7,048	0	0
Northwest Airlines	39,874	28,651	2,441,230	677,679	1,116,600	709,769	0	0
Pan American Airways:								
Atlantic division	4,941,285	2,769,501	0	0	1,373,976	1,457,426	208,270	71,382
Latin American division	10,190,802	10,121,810	0	0	1,553,474	1,540,991	0	0
Alaska operations	2,261,484	1,479,722	0	0	242,264	221,037	0	0
Pacific operations	3,233,580	2,089,324	0	0	3,074,246	2,081,518	0	0
Pan American-Grace Airways	860,548	929,823	231,842	5,908	192,719	117,871	13,987	0
Transcontinental & Western Air	3,726,217	2,077,408	0	0	1,453,883	1,378,110	275,238	117,433
United Air Lines	132,034	73,529	0	0	437,238	217,084	0	0
Uruba, Medellin & Central Airways	22,835	26,991	0	0	0	0	0	0
Total	28,294,043	20,829,780	4,036,151	1,913,248	10,299,249	8,575,425	705,877	248,711
Index (1948=100)	135.83	100.00	210.96	100.00	120.10	100.00	283.81	100.00

## International and Overseas: July 1949

Operator	Revenue miles	Revenue passengers	Revenue passenger-miles (000)	Passenger seat-miles (000)	Revenue passenger load factor (percent)	Ton-Miles flown			
						Express	Freight	U. S. Mail	Parcel Post
American Airlines	185,550	7,873	6,114	9,037	67.66	0	96,093	10,893	0
American Overseas Airlines	717,242	8,753	19,948	28,757	69.37	216,441	0	72,334	30,655
Braniff Airways	141,914	1,111	2,506	6,706	37.37	0	28,188	1,989	0
Chicago & Southern Air Lines	185,533	2,056	2,333	8,561	27.25	0	19,180	1,574	180
Colonial Airlines	58,346	1,122	882	2,567	34.36	0	896	698	164
Eastern Air Lines	64,480	1,332	1,385	3,195	43.35	0	25,736	5,044	1,491
National Airlines	63,096	6,800	1,890	3,073	61.50	24,056	0	1,146	0
Northwest Airlines	491,674	3,483	6,903	11,618	59.42	10,324	355,636	112,464	0
Pan American Airways:									
Atlantic division	1,631,773	13,915	34,841	54,687	63.71	616,598	0	191,323	37,186
Latin American division	2,432,567	68,211	61,251	96,098	63.74	1,157,919	0	212,806	0
Alaska operations	222,393	3,499	3,273	6,621	49.43	383,140	0	38,519	0
Pacific operations	1,170,122	7,987	22,855	33,968	67.28	540,487	0	413,390	0
Pan American-Grace Airways	504,197	7,438	7,898	18,178	43.45	119,703	0	23,386	1,938
Transcontinental & Western Air	1,351,183	11,156	31,304	45,125	68.91	435,930	0	205,912	36,415
United Air Lines	213,600	3,037	7,289	9,127	79.86	26,167	0	42,344	0
Uruba, Medellin & Central Airways	8,632	202	67	137	48.91	2,944	0	0	0
Total	9,142,302	147,975	210,739	337,755	62.39	3,534,009	526,029	1,364,322	108,059

## Domestic: Passenger-miles flown (total revenue and non-revenue, in thousands)

	January	February	March	April	May	June	July	August	Total
Trunk	436,938	440,903	541,986	585,751	616,776	689,168	650,014	638,356	4,599,892
Feeder	6,714	7,545	9,821	11,529	12,771	14,415	15,619	16,234	94,648
Territorial	4,326	3,709	3,794	4,404	3,987	4,155	4,934	5,029	34,338
Total	447,978	452,157	555,601	601,684	633,534	707,738	670,567	659,619	4,728,878

# Official Actions . . . Civil Aeronautics Board

(Continued from page 129)

E-3319 disapproves agreement between American Overseas and Pan American and TWA, relating to the granting of discounts to the national military agencies (Sept. 16).

E-3320 approves agreement between Western Air Lines and Trans-Canada Air Lines, relating to joint facilities and services at Lethbridge, Canada (Sept. 19).

E-3321 approves agreement between Colonial Airlines and Holland American Line, relating to establishment of combination air/sea fares between the United States and Bermuda (Sept. 19).

E-3322 approves agreement between Mid-Continent Airlines, the city of Fort Smith, and Braniff Airways, relating to the provision of aircraft fueling service at Fort Smith Municipal Airport (Sept. 19).

E-3323 approves agreements between TWA, Air France, and General Post Office, Telecommunications Department, London, relating to lease of teletype circuit, English portion, between London, England, and Orly Field, France (Sept. 19).

E-3324 approves agreements between Pan American and Australian National Airways, relating to ground facilities at Sydney, Australia (Sept. 19).

E-3325 approves agreement between Pan American Airways and Compania Cubana de Aviacion, relating to ground facilities and services at Bermuda, the Azores, and Lisbon, Portugal (Sept. 19).

E-3326 grants Colonial Airlines permission to serve Syracuse, N. Y., on route No. 71, through the use of Clarence E. Hancock Field, on or after September 17, 1949 (Sept. 19).

E-3327 grants All American Airways permission to serve Oil City-Franklin, Pa., on route No. 97, through the use of Chess-Lamberton Airport, on or after September 25, 1949 (Sept. 19).

E-3328 grants the city of Houston, Tex., and the Houston Chamber of Commerce leave to intervene in the matter of the renewal and amendment of temporary certificate held by Pioneer Air Lines for route No. 64 and the temporary suspension, in part, of certificates held by Continental Air Lines, Braniff Airways, and American Airlines (Sept. 20).

E-3329 authorizes change in service pattern for Piedmont Aviation for its route No. 87 (Sept. 20).

E-3330 grants Slick Airways permission to serve certain points on route No. 101, through the use of certain airports on or after September 19, 1949 (Sept. 20).

E-3331 dismisses complaints of Chicago and Southern Air Lines, Delta, and Eastern requesting the Board to investigate and suspend certain tariffs filed on behalf of National Airlines (Sept. 20).

E-3332 grants Central Airlines temporary exemption from the provisions of § 401 (a) of the Act so as to permit the carrier to serve Holdenville, Okla., and Dallas, Tex., as intermediate points on segment 4 of route No. 81 (Sept. 20).

E-3333 orders Airline Transport Carriers to cease and desist from violating the Economic Regulations with respect to regularity of service (Sept. 20).

E-3334 supplemental opinion and order in the *Skycruise* case deny application of American Air Export and Import Company for a certificate authorizing all-expense escorted tours between terminal points in the United States and resort areas in Latin America and the Caribbean (Approved by the President September 20, 1949) (Aug. 19).

E-3335 grants Central Airlines permission to serve certain points through various airports on route No. 81 on or after September 15, 1949 (Sept. 20).

E-3336 denies application of Lon Brannan Air Service and Northern Consolidated Airlines for exemption from the provisions of § 401 of the Act so as to permit the carriers to engage in air transportation between certain Alaskan points (Sept. 21).

E-3337 denies application of Alaska Airlines for a disclaimer of jurisdiction or a temporary exemption from § 416 (b) of the Act with respect to certain operations between Paine Field, Everett, Wash., and Fort Richardson, Anchorage, Alaska, and Ladd Field, Fairbanks, Alaska (Sept. 21).

E-3338 approves agreement between United Air Lines and Catalina Island Steamship Line, relating to joint use of ticket office (Sept. 22).

E-3339 approves agreement between Continental Air Lines and Southern Airways, relating to sale of aircraft (Sept. 22).

E-3340 approves agreement between TWA and Capital Airlines, relating to joint facilities and services at Toledo, Ohio (Sept. 22).

E-3341 approves agreement between Eastern Air Lines and Caribbean-Atlantic Airlines, relating to freight agreement (Sept. 22).

E-3342 approves agreement between American Airlines and Ernie's Taxi Company, relating to transportation of passengers to and from Chemung Airport, Elmira, N. Y. (Sept. 22).

E-3343 approves agreement between Pan American Airways and Canadian Pacific Air Lines, relating to standard IATA interline traffic agreement (Sept. 22).

E-3344 approves agreement between United and Capital relating to commission amendment to the basic ATA interline agreement (Sept. 22).

E-3345 approves agreement between Eastern and United, relating to loan of employees to United by Eastern (Sept. 22).

E-3346 approves agreement between Chicago and Southern Air Lines and British South American Airways Corporation, relating to international interline passenger and cargo transportation (Sept. 22).

E-3347 approves agreement between TWA and Alaska Coastal Airlines, relating to international interline traffic (Sept. 22).

E-3348 approves agreement between TWA and Eastern, relating to rental of hangar space (Sept. 22).

E-3349 approves agreement between United Air Lines and West Coast Airlines, relating to the sale of aviation gasoline by United to West Coast Airlines (Sept. 22).

E-3350 authorizes change in service pattern for West Coast Airlines on route No. 77, amends order serial No. E-2056, so as to permit the carrier to omit Mount Vernon and Anacortes, Wash., on all flights over segment 5 of route No. 77, until such time as the Mount Vernon Airport becomes suitable for night operations, or until June 30, 1950, whichever shall first occur (Sept. 22).

E-3351 grants the city of Winona, Minn., leave to intervene in the *Parks Investigation* case (Sept. 22).

E-3352 approves agreement between Braniff Airways and Pan American-Grace Airways, relating to furnishing of certain meteorological services to Braniff (Sept. 22).

E-3353 approves agreement between West Coast Airlines and Radio Cab Company, relating to transportation of passengers to and from North Bend Airport in Oregon (Sept. 22).

E-3354 orders certain applications, motions, petitions, and replies referred for consideration until after disposition of certain petitions for certiorari to the Supreme Court concerning the Board's decision in the *Southeastern States* case (Sept. 26).

E-3355 dismisses complaint of Braniff Airways relative to certain tariffs proposed by Continental Air Lines (Sept. 23).

E-3356 approves interlocking relationships existing as a result of the holding of certain positions by Dorothy H. Robinson in Robinson Airlines Corporation (Sept. 23).

E-3357 grants the Los Angeles Chamber of Commerce and the city of Oakland, Calif., leave to intervene in the *Transcontinental Coach Type Service* case (Sept. 26).

E-3358 approves agreements between Western Air Lines and American, relating to services and facilities at San Francisco (Sept. 26).

E-3359 approves agreement between American Overseas Airlines and TWA, relating to services and facilities outside the continental United States (Sept. 26).

E-3360 consolidates into a single proceeding applications, Dockets Nos. 3289 and 3299, of the city of Lumberton, N. C., for amendment of existing certificates to provide that city with air service (Sept. 26).

E-3361 approves agreement between Braniff Airways and Mississippi Shipping Co., relating to interline traffic (Sept. 26).

E-3362 approves agreement between Chicago and Southern Air Lines and Scandinavian Airlines System, relating to interline traffic (Sept. 26).

E-3363 approves agreement between United, American, and Capital relating to the operation of a joint ticket office in Detroit, Mich. (Sept. 26).

E-3364 approves agreement between West Coast Airlines and Scandinavian Airlines System, relating to IATA interline traffic (Sept. 26).

E-3365 approves agreement between Mid-Continent, American, Braniff, and Continental, relating to the sharing of an interphone system (Sept. 26).

E-3366 approves agreements between Colonial and Capital, relating to ground services and facilities at Washington, D. C. (Sept. 26).

E-3367 approves agreements between Western and Northwest, relating to services and facilities at Butte, Mont. (Sept. 26).

E-3368 approves agreement between Chicago and Southern and Hawaiian Airlines, relating to IATA interline traffic (Sept. 26).

E-3369 approves interlocking relationships existing as a result of the holding of certain positions by Paul William Johnston in the Railway Express Agency, Inc., and certain other companies (Sept. 26).

E-3370 grants Capital Airlines temporary exemption from the provisions of § 401 (a) of the Act, so as to permit the carrier to serve Baltimore and omit service to Pittsburgh on its C-54 all-cargo flights which serve New York-Newark and points on route No. 14 west of Baltimore (Sept. 26).

E-3371 orders an investigation of, and suspends for 90 days, certain fares, rules, and regulations proposed by Northwest Airlines (Sept. 26).

E-3372 orders portion of the consolidated proceeding in Docket Nos. 3841, 4003, and 3984, relative to certain fares, rules, and regulations of Northwest Airlines, be severed from the consolidated proceeding and dismissed (Sept. 27).

E-3373 issues an amended certificate to Continental Air Lines for route No. 29, so as to permit nonstop service between Pueblo, Colo., and Tulsa (Sept. 26).

E-3374 orders investigation of, and suspends for 90 days, certain fares, rules, and regulations proposed by Alaska Airlines and Northern Consolidated Airlines (Sept. 27).

E-3375 suspends letters of registration of certain large irregular air carriers, for failure to file quarterly statistical flight reports (Sept. 27).

E-3376 approves agreement between certain air carriers and Thaddeus Johnson, relating to the joint use of porter service (Sept. 27).

E-3377 approves agreement between Capital Airlines and Air France, relating to interline traffic agreement and supplements thereto (Sept. 27).

E-3378 approves agreement between TWA and Mid-Continent, relating to termination of radio navigational service (Sept. 27).

E-3379 approves agreement between Mid-Continent and TWA, relating to sublease of office space (Sept. 27).

E-3380 orders that certain information contained in documents relative to transactions between the Hughes Tool Co. and TWA be withheld from public disclosure (Sept. 27).

E-3381 orders investigation of, and suspends for 90 days, certain fares, rules, and regulations proposed by Continental Air Lines (Sept. 28).

E-3382 grants the Air Line Pilots Association, International, leave to intervene in the matter of the application of Bonanza Air Lines for approval of an agreement with TWA, relative to the transfer of certain route authorizations (Sept. 28).

E-3383 grants the town of Greenfield, Mass., leave to intervene in the matter of the application of American Airlines, requesting change of airport serving Springfield, Mass. (Sept. 28).

E-3384 orders investigation of, and suspends for 90 days, certain tariff rules proposed by Northwest Airlines (Sept. 29).

E-3385 denies petitions of Eastern and United, requesting that their applications, Dockets Nos. 3986 and 4006, be consolidated with the *Parks Investigation* case (Sept. 29).

E-3386 dismisses complaint of United Air Lines in the matter of certain changes proposed on behalf of Continental Air Lines (Sept. 29).

E-3387 dismisses complaints of American and Delta in the matter of certain coach fares, rules, and regulations proposed by Capital, Eastern, and National (Sept. 29).

E-3388 dismisses complaint of the Air Line Pilots Association, International, in the matter of compliance with § 401 (l) (4) of the Act by National Airlines (Sept. 29).

E-3389 dismisses complaint of the International Association of Machinists in the matter of compliance with § 401 (l) (4) of the Act by National Airlines (Sept. 29).

E-3390 grants Central Airlines permission to use Eaker Airfield, Okmulgee Municipal Airport, Tulsa Municipal Airport, and Perrin Field, on segments Nos. 2 and 3 of route No. 81, subject to certain conditions (Sept. 30).

E-3391 authorizes change in service pattern for Empire Air Lines, for its route No. 78 (Sept. 30).

E-3392 orders investigation of, and suspends for 90 days, cer-

## Gain in Airports Noted In Latest CAA Survey

The most recent State-by-State tabulation of airports recorded with the Civil Aeronautics Administration shows a combined total of 6,416 civil and military airports as of October 1, 1949. This total represented an increase of 92 airports over the October 1, 1948, count.

Texas leads all other States with 636 airports; California is second with 487; New York has 267, Ohio 251, and Michigan 245. The following table shows the State-by-State record by type of ownership:

United States Airports as of Oct. 1, 1949  
(Data covers existing airports recorded with CAA)

State	Total	Municipal	Commercial	CAA intermediate	Military	All others
Alabama.....	94	33	37	2	15	7
Arizona.....	182	45	32	5	32	68
Arkansas.....	91	33	39	0	0	19
California.....	487	147	186	8	41	105
Colorado.....	108	35	32	3	3	15
Connecticut.....	34	10	24	0	0	0
Delaware.....	18	2	13	0	1	2
District of Columbia.....	3	0	0	0	2	1
Florida.....	197	90	46	1	53	7
Georgia.....	139	56	36	5	10	32
Idaho.....	114	81	12	3	1	17
Illinois.....	175	32	117	3	4	19
Indiana.....	160	33	114	1	5	7
Iowa.....	181	52	79	2	2	46
Kansas.....	189	91	60	3	10	25
Kentucky.....	66	14	38	1	2	11
Louisiana.....	88	28	26	4	6	24
Maine.....	68	25	34	0	3	6
Maryland.....	51	5	28	0	7	11
Massachusetts.....	81	23	32	0	4	2
Michigan.....	245	117	106	0	5	17
Minnesota.....	124	76	47	0	1	0
Mississippi.....	90	35	33	4	6	12
Missouri.....	120	45	61	5	3	6
Montana.....	105	72	14	8	1	10
Nebraska.....	135	62	47	3	2	21
Nevada.....	61	19	19	6	5	12
New Hampshire.....	34	12	17	0	1	4
New Jersey.....	93	12	70	0	5	6
New Mexico.....	108	31	30	11	8	28
New York.....	267	50	144	2	6	65
North Carolina.....	148	34	91	1	13	9
North Dakota.....	104	50	39	6	0	9
Ohio.....	251	37	178	4	4	28
Oklahoma.....	156	80	57	1	4	14
Oregon.....	114	44	37	3	0	30
Pennsylvania.....	216	42	160	2	5	7
Rhode Island.....	11	2	7	0	2	0
South Carolina.....	67	36	19	2	6	4
South Dakota.....	66	40	21	1	1	3
Tennessee.....	75	23	38	6	2	6
Texas.....	636	165	155	13	51	252
Utah.....	60	37	12	7	8	4
Vermont.....	23	9	12	0	1	1
Virginia.....	125	24	62	2	14	23
Washington.....	167	66	56	4	12	29
West Virginia.....	57	13	29	2	0	13
Wisconsin.....	175	60	89	2	2	22
Wyoming.....	57	32	12	5	1	7
Total.....	6,416	2,180	2,662	142	366	1,066

tain charges and charges for the transportation of freight demanded and charged by the Flying Tiger Line (Sept. 30).

E-3393 grants Pan American Airways temporary exemption from the provisions of § 401 of the Act, so as to permit the carrier to serve Nice, France, as a coterminal point with Marseille, France, on the segment of its route between coterminal points in the United States and certain intermediate points (Sept. 29).

E-3394 amends order serial No. E-3241, dated September 2, 1949, which disapproves an agreement between Cia. de Aviacion Faucett, Aerovias Peruanas, and Pan American-Grace Airways, so as to extend the 30-day effective period to 60 days (Sept. 30).

E-3395 grants the Flying Tiger Line permission to serve certain points on route No. 100 through the use of certain airports, on or after October 1, 1949 (Sept. 30).

E-3396 amends order serial No. E-2889, dated May 27, 1949, so as to extend the date to December 1, 1949, for Wisconsin Central Airlines to continue serving Wisconsin Rapids-Stevens Point, Wis., in lieu of Wausau, Wis., on segment 5 of route No. 86 (Sept. 30).

E-3397 denies application of William F. Leland and Consolidated Air Lines for an exemption from the provisions of § 291.18 of the Economic Regulations, so as to permit the transfer of letter of registration No. 785 issued to Seattle Air Charter, to Consolidated Air Lines (Sept. 30).

E-3398 approves interlocking relationships existing as a result of the holding of certain positions by William K. Jacobs, Jr., in the Atlantic, Gulf, and West Indies Steamship Lines, Inc., and National Airlines, Inc. (Nov. 4).

E-3399 authorizes change in service pattern for Trans-Texas Airways, on its route No. 82 (Oct. 4).

E-3400 authorizes All American Airways to suspend service temporarily at Athens, Ohio, for a period of 6 months, or until an adequate airport becomes available at Athens (Oct. 5).



# Non-Air-Carrier Accidents Decline, CAB Statistical Analysis Reveals

Non-air-carrier accidents in 1948 numbered 7,850, a decline of 15.2 percent under the record 9,253 for 1947, and only 3 percent higher than the 7,618 in 1946, it is revealed by a statistical analysis of non-air-carrier aircraft accidents for the year 1948 issued recently by the Bureau of Safety Investigation of the Civil Aeronautics Board. Of the 1948 accidents, 350 (10.3 percent) were fatal, in comparison with 382 (9.5 percent) in 1947.

"Primarily, such a decline in the number of accidents indicate that less flying was accomplished during the year," the report states. "However, the reduction was indirectly influenced by the continuous efforts of the Civil Aeronautics Board, the Civil Aeronautics Administration, and the active state aviation commissions in their continuous and intensive efforts in safety education, development of remedial measures, and enforcement of the Civil Air Regulations."

**Fatal Accident Ratio Increased.**—The fatal accident ratio increased to 10.8 percent from 9.5 percent in 1947, occasioned chiefly by a rise in the noncommercial fatal ratio to 12.8 percent from 10.9 percent in 1947.

Stall accidents accounted for 416 (49 percent) of the 850 fatal accidents—identical with the percentage in 1947. Thirty-five percent of all stall accidents were fatal, against 33 percent in the preceding year.

Collision accidents (all types) totaled 2,891 (3,607 in 1947), and 340 (11.7 percent) were fatal, against 357 (9.9 percent) in the previous year.

Airframe failure accidents totaled 201 and accounted for only 2.6 percent of all accidents (4.5 percent in 1947).

Fire-in-flight accidents continued at a very low number—20 compared with 21 in 1947. Of these, only 3 (15 percent) were fatal, against 5 (24 percent) in 1947.

Landing, take-off, and taxiing accident types were responsible for 43 percent of all accidents, but less than three-tenths of 1 percent were fatal.

**Daylight Accidents Lead Fatalities.**—Ninety percent of the 850 fatal accidents occurred during daylight, in comparison with 89.1 percent in 1947.

Of the 850 fatal accidents, 488 (57 percent) occurred during local flight, and 43 percent during cross-country. In 1947, the respective percentages were 60 and 40.

Occupants of the aircraft destroyed in accidents received only minor or no injury in 43 (48 in 1947) and serious injury in 20 (18 in 1947) out of each 100 accidents. Fatal injury occurred in 37 (34 in 1947) out of each 100. Occupants escaped, therefore, with less than fatal injury in about two-thirds of the accidents in which the plane was destroyed.

Violations of the Civil Air Regulations were present in 457 (54 percent) of the 850 fatal accidents in 1948. This compared with 40 percent of the 882 in 1947. The outstanding violations were: (a) reckless flying; (b) flying below minimum altitude; (c) students carrying passengers; (d) students flying outside of

their practice areas; (e) flying under influence of liquor; (f) flying VFR during IFR conditions; (g) flying contrary to traffic pattern.

In September a decline set in when, during that and subsequent months of the year, the monthly accident totals fell below those in the corresponding months of 1947 and 1946. Only 344 accidents were reported in December, the lowest monthly figure over the 1946-48 period.

## CAA Study of Words Seeks to Assist Pilots

"What's the good word?" is a question receiving serious study in the Civil Aeronautics Administration's psychology branch.

Millions of words are radioed each day from CAA airport traffic control towers and communications stations to pilots across the Nation and over the oceans, and it is important to safety that pilots hear them correctly the first time they are spoken.

Wartime research revealed, however, that some unknown factor gives certain words a much higher degree of intelligibility than others, and the CAA psychology branch now is attempting to construct a standard vocabulary for aeronautical communications that will take advantage of this "Factor X."

First step is to determine the 1,000 words most commonly used by CAA ground personnel in giving instructions and information to pilots. This is being done by analyzing recordings made in CAA towers all over the United States.

Next, the psychology branch will rate these 1,000 words for intelligibility. As it shapes up now, 100 or so will be words already rated in the course of wartime experiments. The rest will have to be evaluated by CAA on the scale established by the experiments.

Finally, an effort will be made to find substitutes for any commonly used words which score low on intelligibility.

The project has particular timeliness in light of a request from the International Civil Aviation Organization that the United States recommend a standard English vocabulary for use in world flying.

The psychology branch is headed by Malcolm McCormick, and operates as part of the CAA Office of Aviation Safety's Medical Division, under the general supervision of Dr. W. R. Stovall.

# Income Gains Shown By 16 Domestic Lines For Second Quarter

The Civil Aeronautics Board announced last month that for the second quarter of 1949 reports filed by the 16 domestic trunk air lines indicate a net income from operations of \$15,334,416 as compared with net operating income of \$3,262,838 for the same period in 1948.

Additional figures covering operating revenues and expenses for the second quarter ending June 30, 1949, and June 30, 1948, follow:

Quarterly Figures Compared

	3 months ending—	
	June 30, 1949	June 30, 1948
Revenue miles flown.....	83,229,144	80,936,059
Operating revenue:		
Passenger.....	\$104,499,552	\$89,805,260
Mail.....	11,172,711	9,485,754
Express.....	2,079,470	2,236,954
Freight.....	4,489,455	3,281,390
All other.....	2,088,582	1,695,248
Total.....	124,329,770	106,505,206
Operating expenses.....	108,995,354	103,242,366
Net operating income.....	15,334,416	3,262,838

For the year ending June 30, 1949, the net operating income for the 16 domestic trunk air lines was \$23,118,722 as compared with the net operating loss of —\$15,488,309 for the year ending June 30, 1948. Additional figures covering operating revenues and expenses for the years ending June 30, 1949, and June 30, 1948, follow:

Fiscal Year Figures Compared

	12 months ending	
	June 30, 1949	June 30, 1948
Revenue miles flown.....	322,251,404	312,610,960
Operating revenue:		
Passenger.....	\$363,684,803	\$319,268,200
Mail.....	54,008,200	28,254,592
Express.....	9,430,862	9,866,436
Freight.....	16,309,495	11,015,497
All other.....	7,972,194	6,504,226
Total.....	451,405,464	374,908,951
Operating expenses.....	428,286,742	390,397,260
Net operating income.....	23,118,722	—15,488,309

## Statistics Reveal Buzzing Both Costly and Dangerous

Statistics showing that buzzing is more dangerous than many pilots seem to realize are given in Civil Aeronautics Board Safety Bulletin No. 183-49 entitled "Buzzing Is Deadly" issued recently.

The bulletin points out that in 1947, 44 percent of low flying accidents were fatal, as compared with a 7.5 percent fatality rate for the average accident.

Innocent victims, friends, relatives, or bystanders, were killed in more than half the fatal low flying accidents. "Practically every case of low flying was willful," the bulletin states. "Every one could have been prevented! The inescapable conclusion of this story is that unnecessary low flying is not only hazardous but far too often ends in tragedy."

The bulletin is on sale for 5 cents a copy by the Superintendent of Documents, Government Printing Office, Washington 25, D. C.

## George D. Childress Heads Aviation Extension

Appointment of George D. Childress as chief of the aviation extension division of the Office of Aviation Development was announced last month by D. W. Rentzel, Administrator of Civil Aeronautics.

Under the recent reorganization of the CAA, developmental activities will be concentrated in the newly formed office, of which Wiley R. Wright is Director, and important aspects of this development will be in the division headed by Childress. His division will, among other duties, "encourage the development, manufacture, and adoption of improved aircraft, equipment and related products, especially for personal and agricultural uses" in addition to the general promo-

tion of personal and industrial flying. Establishment of the new office is evidence of the CAA's program of emphasizing development and extension of flying, while continuing its efforts to reduce regulations and pass on to industry more of the regulatory functions.

Childress was born in Paint Bank, Va., in 1909. He learned to fly in 1927 and engaged in commercial airport and flying-school operation in and around Roanoke until 1939, when he joined the CAA as assistant aeronautical inspector. After a time at Fort Worth, Tex., as chief of the nonscheduled flying branch of the CAA's Fourth Region, he came to Washington as chief of the industrial flying division.

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